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an exploration of the cultural potential to shift towards more sustainable food consumption patterns in the Netherlands

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Pleasure and Purity

an exploration of the cultural potential to shift towards more sustainable food consumption patterns in the Netherlands

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For Olivier

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Chapter 1

Introduction

Processes of food production and consumption have the single largest environmental impact of all human activities (Smil, 2000). Therefore, the sustainability of these processes demands specific attention in the quest for sustainable development. Food choices entail an intimate relationship with the natural world, and our food habits reflect our foundational beliefs regarding our obligations towards other people, nature, and animals (Fischler, 1988; Montanari, 2006), as well as our beliefs about how best to serve our own comfort, health, and well-being. Besides the more obvious physical and physiological values associated with food consumption, human beings derive a range of other, non-material, values from the food they eat, including social, cultural, aesthetic, symbolic, moral, and spiritual values, which together could be said to reflect people's understanding of humanity's place on earth (Hulme, 2009). Moreover, such understanding serves to situate the issues related to food sustainability relative to an individual's mental world. Hulme (2008) argues that this can be considered a key to behavior change in consumers. Hence, the nature and quality of our food consumption can serve as a magnifying glass on, and a mirror of, our collective culture and identity (Hulme, 2009).

There is considerable evidence that particular consumption patterns are problematic and that changing them can make a great contribution towards a more sustainable society (Westhoek et al., 2011). Particularly, the world's growing hunger for meat, fish, and other products derived from animals, have been identified as the most serious threat to global environmental sustainability (FAO, 2006; Weis, 2007). Moreover, the production and consumption of livestock is predicted to double on a worldwide scale until 2050 as a result of a growing world population and rising prosperity (Keyzer, Merbis, Pavel, & van Wesenbeeck, 2005), thereby underscoring the urgent need, as well as the enormous potential of addressing this issue. Hence, consumers in notably the Western world need to shift towards a more sustainable diet: that is, a diet in which proteins of animal origin are partially substituted by plant proteins (Aiking, 2011; Gerbens-Leenes, Nonhebel, &

Krol, 2010; Smil, 2002) and where food is derived from more careful and ecologically integrated production processes (Lang & Heasman, 2004). Over a medium- to long-term horizon, these more sustainable production practices present not only ecological but also real economical advantages (Herren, 2011; Stehfest et al., 2009).

Food sustainability is a complex notion and there are diverging interpretations of what it means exactly (Aiking & de Boer, 2004). Frequently, the definition is narrowed down to the ecological effects that connect to vital ecosystem functions and the preservation of scarce global natural resources. As Aiking and de Boer (2004) point out, there may also be serious gaps between producers' and consumers' understandings of the term. Large companies may refer to the "ecologically sound, economically viable and socially acceptable", while consumers think of production and consumption systems that serve a broader range of attributes, such as community-based efforts to build healthy, just and local food systems (Kloppenburg et al., 2000), as well as farming systems that can provide better animal welfare. In this work, we aim to maintain a broad focus, understanding food sustainability as a balance of ecological, economic, and social aspects, so that present and future human needs can be met. Thus, food sustainability needs to be regarded as a complex policy problem that has not one solution. Instead, it demands trade-offs and raises difficult dilemmas (Aiking & de Boer, 2004). Therefore, deeply engrained, social-cultural habits, values, and worldviews need to be addressed in order to come up with feasible pathways for change.

1.1 Global context of the problem

The environmental and social problems associated with livestock production for food originate from transitions in the Western diet that occurred over the last 50 years (Smil, 2002). While the world's population doubled during this time, the amount of meat consumed increased fivefold (Evans, 1998), particularly in affluent Western countries. The livestock industry has large environmental effects (Westhoek, et al., 2011), it has raised much concern regarding animal welfare, and the overconsumption of animal derived protein has been associated with various health problems and obesity (Pan et al., 2011; Wang & Beydoun, 2009). As far as the environment goes, livestock production uses up to 10 times the quantity of resources such as land, energy and water relative to equivalent amounts of vegetarian food (Gerbens-Leenes, 2006; Goodland, 1997; Pimentel & Pimentel, 2003; White, 2000). The scale and intensity of animal production generates an increasing proportion of global greenhouse gas emissions, loss of biodiversity and it causes severe pressure on increasingly scarce natural resources, such as land, energy and freshwater (Steinfeld et al., 2006). A recent study estimates that global livestock production is responsible for around 12% of global greenhouse gas emissions, mainly due to emissions from animals (i.e. through enteric fermen-

tation) and manure, the cultivation and fertilization of feed crops and pasture, land-use changes, such as deforestation and grassland conversion, and emissions caused by the production of inputs (such as fertilizers), transporting and processing (Westhoek, et al., 2011). Although this figure of 12'% is lower than the much publicized FAO estimate, which attributed 18% of the emissions to the world's livestock (Steinfeld, et al., 2006), it still raises questions regarding the massive growth of industrialized animal production for human consumption.

The recent transitions in the Western diet are part of a universal trend in dietary changes over the whole world. Smil (2002) found that economic modernization as the driving force behind urbanization was correlated with societies moving up the food chain and increasing the amount of animal-derived protein in their diets. This process has also been referred to as the "nutrition transition" and more precisely it entails a shift towards a higher energy density diet with a greater role for fat and added sugars in foods, greater saturated fat intake (mostly from animal sources), reduced intakes of complex carbohydrates and dietary fiber, as well as fruits and vegetables (Drewnowski & Popkin, 1997). The negative impact of these dietary changes for human health are compounded by lifestyle changes that entail reduced physical activity at work and during leisure time (Ferro-Luzzi & Martino, 2007).

While most Western European countries have completed this trajectory of dietary change, transition countries are in the middle of it and the global demand for meat is therefore projected to double by 2050 (Bruinsma, 2009; Steinfeld, et al., 2006). Also, the transition is accelerated by the fact that meat prices have shown a steep decline so that developing countries start to increase their meat consumption at much lower levels of income than the industrialized countries did some 20-30 years ago (WHO/FAO, 2003). While some 800 million people in less developed countries are still malnourished (Alexandratos, 2009) and in need of higher energy diets to be healthy, affluent countries overeat on protein, which has led to roughly 1.6 billion people being overweight (WHO, 2006). Current food consumption patterns in the Western world therefore contribute to a situation of global inequality, as the consequences of their diet for people and the environment are felt globally (Steinfeld, et al., 2006). This situation is aggravated by countries "grabbing" land in less developed countries in order to increase livestock production to feed wealthier consumers, thereby endangering the subsistence of local small-scale farmers (von Braun & Meinzen-Dick, 2009). Moreover, the resulting scarcity of local food supply has been associated with political conflict and social unrest (Daniel, 2011; von Braun & Meinzen-Dick, 2009).

The global environmental and social impact of high protein diets necessitates action. Current projections indicate that the natural resources of the earth do not allow even the current world population to match its living standards to those of the West, let alone another potential 2 billion people up to 2050. Therefore, there is a global urgency to reduce the amount of animal proteins consumed and to reverse the trend towards a diet that has detrimental effects on humans,

animals, nature and world peace. Industrial transformation along with societal transition are urgently needed (Aiking, 2011; de Boer, 2006; IAASTD, 2008).

When considering the impact from the perspective of the entire food chain, it is obvious that there are many different points where improvements could be and must be made. For example, roughly 40% of GHG emissions in the food chain occur up to the farm gate (Garnett, 2011). Technological innovation and change of production processes can contribute a great deal. However, by now it is acknowledged that these measures will not suffice (Tukker et al., 2011) and that changes in consumption will need much more attention (Garnett, 2011; Goodland, 1997; Leitzmann, 2003; Pimentel & Pimentel, 2003; Reijnders & Soret, 2003; Stehfest, et al., 2009). Consumption patterns and associated social-cultural habits, values, and worldviews need to be addressed when envisioning trajectories towards a more moderate consumption of animal protein.

While the scope of the research is broad and considers consumption patterns typical for the Western world, the food culture of the Netherlands is also important as all the empirical data for this study have been collected there. Thus, to understand the data presented in this thesis, some background on Dutch food patterns and culture is beneficial. The Dutch food culture is traditionally described as geared towards simple, practical and somewhat conservative cooking (Davidson, 2006). Cooking schools that were popular in the first half of the 20th century are often held responsible for this (ibid). As far as consumption patterns are concerned, Jobse-van Putten (1995) states that after 1960 there is a clear trend in the country to spend less time preparing a meal, to embrace convenience and instant foods, and to eat outside the home. While the Netherlands has also developed more awareness of food quality, she argues that an orientation towards the enjoyment and pleasure of food even today has its limits because it conflicts with the sober and economical lifestyle so typical of the Dutch (ibid). Coveney (2006) points to the problematization of food within the Christian ethic. Control of the appetite, moderation, self-mastery and guilt played an important role throughout history and limiting the pleasures of eating provided a solution to the ethical concern that food represented. He argues that conduct around food and experiencing the pleasures of eating within contemporary Western society is still problematic (ibid).

It should also be mentioned that Dutch food culture exists along with a highly modernized and rationalized food system (Grin, Felix, & Bos, 2004) that is dominated by a few big retailers. For example, the market leading supermarket Albert Heijn provides a wide range of convenience foods everywhere (Stelder, 2011). Considering for example the cities of Amsterdam and The Hague, 63% and 75% of the population, respectively, have Albert Heijn as their closest supermarket (ibid). Consumers move within a perfectly fitted (physical) environment that anticipates successfully their presumed needs and desires (Larson & Story, 2009). The same is true for canteens in the work place, schools, food service and restaurants. Thus, if people are not inclined, for whatever reason, to engage with their

food choices on a daily basis, they can easily satisfy their needs without giving them much thought. There is in fact little urgency for consumers to develop their own initiative and to have autonomous reasons to buy one thing or another.

1.2 Focus and scope of the research

Consumers in the Western world need to shift towards a more sustainable diet. This entails the (partial) substitution of proteins of animal origin by plant proteins (Aiking, 2011; Gerbens-Leenes, et al., 2010; Smil, 2002) as well as consuming food that derives from more careful and ecologically integrated production (Lang &Heasman, 2004). The present study investigates the potential for a more sustainable diet among consumers in the Netherlands, focusing particularly on meat consumption. The highly problematic nature of meat consumption has started to get public attention in the Netherlands and also government agencies have started to explore pathways towards a "protein transition" (Hoogland, te Riele, & Rotmans, 2008). Also among consumers, there is considerable - be it often skeptical - awareness of the link between meat consumption and climate change (de Boer, Schösler, & Boersema, forthcoming). At the same time, convenience products that are aimed at substituting meat have started to appear in supermarkets and vegetarian options have become commonplace in restaurants. Still, there is no evidence that people actually consume less meat (PVE, 2007).

When aspiring to influence meat consumption patterns, meat should not be considered in isolation, as all foods derive their cultural meaning in relation to the other foods within the system of meaning they belong to (Montanari, 2006). Meat consumption is therefore an integral part of larger food consumption patterns, both individually and culturally. These patterns have often been shaped over centuries, in complex interaction with social conventions, individual habits, and normative values and frameworks (Fischler, 1988). Simultaneously, the current norm in which meat is the centerpiece of the main course of the day-the meatification of the Western diet-is a practice that only came into being in the sixties and seventies of the last century (Smil, 2002). Thus, cultural practices can change within a relatively short time horizon. In both cases, people's practices, values, and beliefs regarding food consumption have to be considered in the context of their specific cultural setting. As research regarding cultural diversity has shown, cultural patterns are persistent and influential. For example, while food patterns within the European Union have converged considerably over the past 40 years (Schmidhuber & Traill, 2006), countries still vary a great deal regarding how much and what kind of meat is consumed and how people satisfy their protein needs (de Boer, Helms, & Aiking, 2006). One must differentiate, therefore, between the presence of meat in the overall consumption pattern and the quantity and quality of it. While the former seems very persistent, the latter seems more flexible, offering potential for change in a more sustainable direction.

This underlines the important influence of culture as a determinant of individual behavior and it also illustrates that a better understanding of a particular food culture is beneficial, if one aspires to stimulate changes in food consumption patterns. The entire system of food production, distribution, and consumption can be understood as a projection of collective national identity (DeSoucey, 2010). The cultural embeddedness of consumption patterns and the habitual character of many food-related tasks also implies that changing food consumption behavior is notoriously difficult (Larson & Story, 2009). It is therefore necessary to understand food consumption within a broad cultural frame that informs people's daily practices, values, and beliefs (de Bakker & Dagevos, 2010; Fischler, 1988).

While many studies have addressed consumer food choices in the past, few have focused on the reduction of protein intake, in particular. Knowledge about the way in which non-vegetarians appreciate diets less centered on animal-derived foods is embodied in just a handful of studies (de Boer & Aiking, 2011; Lea, Crawford, & Worsley, 2006a, 2006b; Wansink, 2002). In the context of the current research, practices related to meat reduction and substitution and their potential adoption by more people on a more frequent basis need much more attention. After all, the abstinence from meat is also often linked to culture, which indicates that solutions for a more sustainable diet also need to be sought in this realm. Based on a social-cultural understanding, pathways towards a more sustainable and generally plant-centered diet may be discovered and developed. This research therefore aims to study the cultural potentials and barriers towards a reduction of animal-derived proteins in the West. In order to do this, the work focuses on drawing distinguishing parallels between the cultural and the individual level and putting individual behavior in the perspective of a broader cultural background. The research comprises a literature study as well as qualitative and quantitative interviews with Dutch consumers.

1.2.1 Specifying the approach to the problem

Up to this point, reference has been made several times to *food consumption patterns*. In order to describe in more detail the approach taken in this work, it is useful to define what is meant by this term. The expression has been used particularly in research that aims to describe food consumption as a cultural phenomenon. This work has an ethological and ethnographical character and is often carried out by anthropologists and social scientists interested in describing aspects of daily modern life. Cultural studies, however, have given much attention to the curiosities of remote, foreign cultures, rather than trying to explain the more diverse and pluralistic cultures of current Western societies. Within the Netherlands, therefore, this type of research is still in its infancy, argues one of the main authors in the field Jozien Jobse van Putten in her book *Eenvoudig maar voedzaam. Cultuurgeschiedenis van de dagelijkse maaltijd in Nederland.* She describes that research into food consumption patterns is not so much concerned

with amounts of food consumed, nutritional value, vitamins or the degree to which certain food choices are healthy. Instead, it regards eating as something more - or even entirely different - than the intake of energy and nutrients (ibid). It wants to shed light on habits, particular to certain groups and certain (historical) time periods, how they change, disappear or reappear and what kinds of meanings and values are associated with them. The emphasis is on "how people bring something of themselves into their food ways and have shaped food consumption". Jobse van Putten summarizes, "the researcher gives more attention to the group than the individual, is more concerned with structure than with 'incidents' and puts more emphasis on development, distribution and change rather than continuity" (p. 13). Methodologically, the work in this thesis is inspired by this approach, taking *food* as well as *food sustainability* to be an object of cultural inquiry. An analogy may also be seen with the ideas that Mike Hulme (2008, 2009) developed regarding climate change. Food sustainability - just like climate change in his argument - is not a problem waiting for a solution. Much more, it needs to be understood as an environmental, cultural and political phenomenon which is re-shaping the ways in which we think about ourselves, our societies and humanity's place on Earth. Hulme (2008) argues that without this understanding it will also be extremely difficult to advance societal change. His main criticism is that "by constructing climate change" - or *food sustainability* - "as a global problem, one that is distanced and un-situated relative to an individual's mental world, we make it easy for citizens to verbalize superficial concern with this problem, but a concern belied by little enthusiasm for behavior change" (Hulme, 2008).

Research that highlights the diversity of food consumption patterns between countries seems to imply consistency within a local food culture. Naturally, this is far from true and we need to account for considerable diversity on the individual level. The level of culture and the level of individual behavior are therefore distinguished. On the cultural level, long-term cultural developments and their influence on individual food choices need to be considered. These long-term developments help to shape people's philosophies of life or food philosophies, as they will be called from here on. The concept of food philosophies denotes the cluster of practices, values and beliefs that have been shaped and evolved over a long time within a particular cultural context. Food philosophies are therefore also shared on a collective level and they are aimed at identifying a more holistic background to motivation. The notion of a food philosophy is inspired by the concept of worldview (Naugle, 2002) or inescapable framework (Taylor, 1989). These concepts refer to the cultural background against which people orientate themselves on questions of what is good, valuable, admirable and worthwhile (Hedlund-de Witt, Forthcoming). This background, however, is largely implicit and unarticulated. People may be unaware of its influence or even resist it (Taylor, 1989). Still, they figure as an important determinant of individual behavior and they are meaningful in the context of a cultural transition towards a more sustainable society (Hedlund-de Witt, 2011; Pilgrim & Pretty,

2010).

On the individual level, research regarding the role of values has contributed some important insights about the background views of individuals in relation to their food consumption. Values can be defined as more abstract life goals and beliefs about the desirable that influence action (Kluckhohn, 1951). They are also described as motivational constructs and desirable goals that serve as guiding principles in people's lives (Rokeach, 1973; Schwartz, 1992). Research has mainly focused on investigating relationships between specific values and specific behaviors such as the purchase of organic food (Grunert & Juhl, 1995; Hoogland, de Boer, & Boersema, 2007). In general, this research has shown that people who are concerned about the wellbeing of others and nature and are oriented towards self-transcendence are more likely to choose for organic meat and smaller portions of meat (de Boer, Boersema, & Aiking, 2009). However, we are still lacking a better understanding of the particular way of life that is associated with individual food choices. It has been argued that a more qualitative, interpretive approach is needed in order to reveal a more embodied understanding, greater depth and cultural meaning of consumer choices (Hughner, McDonagh, Prothero, Shultz, & Stanton, 2007). Is it possible to identify clusters of practices, values and beliefs that characterize an individual's food philosophy?

The aim is therefore to combine two perspectives on people's food choices: from top down, identifying the persistent influences of culture, and from bottom up, looking at individual practices, values and beliefs motivating food choices in the context of their culture (de Boer, 2003). Practices are defined as containing a collective, shared understanding of the world and they incorporate knowledge that is largely implicit and historically-culturally specific (Reckwitz, 2002). A practice is described as a "routinized type of behavior which consists of several elements, interconnected to one another: forms of bodily activities, forms of mental activities, 'things' and their use, a background knowledge in the form of understanding, know-how, states of emotion and motivational knowledge" (ibid). A practice might be a certain way of cooking, of consuming, of working and it entails patterns of bodily behavior as well as certain routinized ways of understanding, knowing how and desiring (ibid). This definition incorporates the cultural background as well as the individual's behavioral choices.

1.3 Central goal of the research and specific research questions

The objective of the research is to get more insight into the cultural factors that connect to potentials and barriers in the process of change towards more sustainable food consumption patterns. Below, it is explained how the study has been organized into more specific goals and how separate questions were approached theoretically.

1.3.1 Food philosophies inviting cultural change

First, a more specific goal is to get more insight into two particular segments of consumers that have been identified in earlier research. This concerns taste-oriented consumers and reflection-oriented consumers. They seem to contribute to cultural innovation with regard to food and many of their food practices are interesting from a sustainability perspective. Previous research has shown that they are willing to choose smaller portions and a higher quality (organic or free-range) of meat (de Boer, et al., 2009). There is evidence that these groups are trendsetting and that a growing number of people strives to follow their example (Campbell, 2007; Germov, Williams, & Freij, 2011). Earlier research has also shown that these groups' value orientations are well represented within Dutch society (de Boer, Hoogland, & Boersema, 2007), potentially identifying groups that might be willing to change. As the current food culture can be characterized as giving rise to unsustainable consumption practices, an investigation is made into how these groups that have the potential to challenge dominant patterns, act and think differently.

By means of in-depth interviews with potential exponents of these two groups, we investigate how their food practices are embedded in a food philosophy and how aspects of this philosophy may contribute to promote their practices among other parts of society. A better understanding of their food philosophies may therefore contribute to envisioning and promoting transitional changes (Hedlund-de Witt, 2011). In order to understand people's food philosophies in the context of long-term developments in Western culture, the interview studies were combined with literature studies of the cultural-historical background that their food philosophies could be related to.

Following de Vries & Petersen (2009) and Boersema & Blowers (2011), it is argued that more sustainable food patterns will only be acceptable to people if they fit into a way of living that not only imposes a lower environmental burden, but also sustains people's quality of life. The analysis of the groups' practices, values and beliefs generates two different food philosophies that may have the potential to challenge existing conventions and aid a cultural transition towards more sustainable consumption patterns. At the same time, an understanding of their food philosophies can provide leverage for policy makers or other societal organizations whose goal it is to promote more sustainable food choices more widely in society (Crompton, 2011).

1.3.2 Profiling types of motivation from a sustainability perspective

Second, the aim is to get more insight into the cultural background of different types of motivation for food choices. From a philosophical perspective, food consumption can be considered people's most intimate way to relate to the natural

world (Montanari, 2006) and a food culture expresses the nature of this relationship. The way in which modern people judge their relationship to the natural world has, according to the philosopher Charles Taylor (1989), been formed by two big constellations of ideas. The two constellations involve, on the one hand, an emphasis on reasoning and utilitarian thought, which fits with an understanding of nature that has no meaning beyond its function for humankind and a value that is only dependent on utility. On the other hand, there is an emphasis on intuition and creative imagination, in which mankind is seen as an integral part of a larger order of living beings that sustains human life and fosters a kind of solidarity in the process of life. Pilgrim and Pretty (2010) refer also to an inclusive view of nature, or a sense of oneness, versus an exclusive and reductionist view of nature which entails a dichotomy between nature and culture. Modern culture is characterized by the tension between the two big constellations of ideas (Pilgrim & Pretty, 2010; Taylor, 1989). This tension becomes manifest, for example, in the form of controversies about sustainability issues, such as strong disagreements between those who emphasize that pollution will be solved by technical means and others who stress that people should be open to nature and adapt to it (Taylor, 1989: 384). Similar types of antagonism can be observed between proponents of technologically advanced systems of high volume foods and adherents of specialty products, including organic agriculture (Gilg & Battershill, 1998; Mann, 2003). The cultural tensions between utilitarian, calculating thought and intuitive feeling are investigated in terms of food-related practices, values and beliefs at the level of individuals. To fully understand the relationship between cultural processes and the behavior of individuals, it is necessary to consider people's types of motivation. According to motivation theories (e.g. Deci & Ryan, 2000), people's behavior is most likely shaped by those cultural factors in their immediate context that match their type of motivation. Self-determination theory (SDT) investigates different types of human motivation from the perspective of basic human needs and living a satisfying life that is experienced by individuals as meaningful. In general, SDT claims that a mindless way of doing something is far less satisfying than a way of living that is focused on what is intrinsically worthwhile to human beings, namely competence, autonomy and an individual's sense of relatedness (Ryan, Huta, & Deci, 2008). Earlier work (de Boer, et al., 2007) suggests that in the case of food this relatedness may refer to one's place in nature ("eating green") or one's place within a particular taste culture ("being a gourmet"). The various types of motivation may have important implications for food sustainability in a pluralistic society. Therefore, the study develops an understanding of some more specific beliefs that consumers hold about themselves and food, along with the implications thereof for food sustainability.

1.3.3 Constructing pathways towards consumer-oriented meat substitution

Thirdly, the goal of this research is to contribute to knowledge regarding potential pathways of meat substitution. In order to identify potential pathways, a structuralist approach is taken towards meals and the feasibility of various options for meat substitution are assessed. The work of the influential anthropologist Mary Douglas has pointed out the structural character of people's food consumption patterns, consisting for example of implicit hierarchies of food (Douglas, 1972; Douglas & Nicod, 1974). Foods derived from animals are situated at the top of the food hierarchy and they are therefore most highly valued and prized. This is also the reason that most meals are named after the piece of meat that's being served (Holm & Mohl, 2000). Moreover, the ingredients of a meal are also structured and the valuation of a particular food being served is often linked to the importance of the occasion. Meals structure days and weeks and they mark festive occasions or periods of reflection and spiritual growth, such as during a fast (Montanari, 2006).

The structural character of food consumption brings forth continuity, but consumption patterns are also dynamic and changing (Gram-Hanssen, 2008). Insight into these patterns and the determinants of continuity and change can help to envision how and what people might eat in the future. With regard to the substitution of meat, this structural perspective raises the question how the cultural role and meaning of meat might be substituted for (Montanari, 2006). We may also wonder what kind of hierarchy exists within the range of various substitution options and if the cultural role of meat is undisputed. Historically, the upsurge in consumption of meat as a source of protein is still a relatively recent phenomenon. Teuteberg & Flandrin (1999) and Grigg (1995) estimate that the transition from vegetable protein to animal-derived protein in Europe was finalized only after World War II and was preceded by periods of decline in meat consumption. Therefore throughout history, the daily meals of the majority of people used to contain little or no meat. As of today, we may also wonder if the current mass meat consumption culture may have served to reduce the special cultural status of meat. Hence, while contemporary observers might be convinced that eating meat is a matter of course, the cultural-historical lens can provide another perspective that also makes it seem more feasible that a transition towards low-meat diets in the future is actually possible. Potential pathways for change are explored employing the cultural theories discussed above.

1.3.4 Framing the reduction of meat consumption

Lastly, the goal is to explore how particular arguments may benefit or hamper public communication regarding a reduction in meat consumption. We focus here on the particular role of climate change and its salience as an argument for

convincing people to cut down on meat. It has been estimated that a global transition towards low-meat diets that are also desirable for health reasons, may reduce the cost of climate change mitigation by 50% in 2050. Despite the considerable contribution of cutting down on meat consumption, trajectories towards a more plant-based diet are a little explored area for action (Gerber, Key, Portet, & Steinfeld, 2010; Popp, Lotze-Campen, & Bodirsky, 2010; Stehfest, et al., 2009). A crucial question is, however, how consumers will respond to the idea of eating less meat for mitigating climate change, in a time that US and European countries are somewhat sceptical about the seriousness of climate change (Feinberg & Willer, 2011). We investigate in more detail how Dutch consumers would respond to the idea that an individual can make a big difference to nature and climate protection by choosing a meal without meat. We discuss how beliefs about climate change and nature protection are related to meat eating and what this suggests about the framing of a reduction in meat consumption.

1.3.5 Research questions

The central research aims specified above lead to these guiding research questions:

1. What insights can we derive from the practices of "reflection-oriented eaters" about their values and motives? How far do they offer perspectives on cultural potentials and barriers for a transition towards more sustainable food patterns?

2. What insights can we derive from the practices of "taste-oriented eaters" about their values and motives? How far do they offer perspectives on cultural potentials and barriers for a transition towards more sustainable food patterns?

3. What kinds of motivational themes underlying consumer food practices can be identified when correlating the cultural and the individual level? How do these themes affect various sustainability relevant topics and what can policy makers learn from this?

4. What insights regarding meat substitution can we derive from the practices of Dutch consumers and what kinds of pathways can be constructed towards meat substitution, accordingly?

5. How do people perceive the relationship between agriculture and climate change? What is the relation with their meat consumption habits and how do particular arguments affect their willingness to change these?

The nature of this investigation gave rise to an approach with mixed methods in order to structure and confine the broad angle of the research. It necessitated

on the one hand a qualitative, interpretive approach in order to reveal a more embodied understanding and cultural meaning of consumer practices (Hughner, et al., 2007); on the other hand cultural-historical data are used to take into account long-term developments and to sketch a cultural background. This method serves to link people's individual choices to long-term trends in their culture, which may also be expected to continue into the future. With this exploratory methodological approach, an effort is made to transcend the focus on individual consumption choices that various authors have criticized as hampering real progress towards a more sustainable society (Thøgersen, 2010).

As mentioned above, it is crucial to distinguish the level of culture and the level of individual behavior within a culture. While analytically speaking, this is what we strive to do in order to answer the questions above, we acknowledge that these levels are in reality never entirely separate from one another. Taylor (1989, p. 206) argues that "the causal arrow runs in both directions", emphasizing the constant interplay and mutual interaction between individual action and the determinism of the cultural background. Culture has a strong influence on individual choices. At the same time, individuals have an active influence on their culture and individuals may come up with new practices that subsequently may serve to change the cultural norm.

While discussing policy options for behavior change, potential adjustments in people's environment will also be discussed because they may give rise to other food choices. The literature refers to culture as one of many environmental influences on food choice (Larson & Story, 2009). A distinction is made between social environments, such as family and home and social peer networks, physical environments like worksites, schools, retail stores or restaurants and lastly macro-environments such as income, socioeconomic status, cultural norms and values, food marketing, agricultural and food policy. The discussion of pathways for change will also address environmental factors, such as the role of physical environments.

1.4 Outline

The thesis addresses the research questions stated above one for one in the following chapters. The objective of the research is to get more insight into the cultural factors that connect to potentials and barriers in the process of change towards more sustainable food consumption patterns. Chapters two and three explore in more detail the food philosophies of two particular consumer segments that spring out because of their relevance for promoting more sustainable food consumption patterns. In both chapters, the cultural historical background of these particular consumer segments are discussed in more detail, and people's food philosophies are illustrated and analyzed in the context of culture and food sustainability. Chapter two describes the organic movement that has its roots in

cultural developments occurring in the course of the 19th century, chapter three describes the Slow Food Movement that arose in the previous century. Based on these data, insights can be derived regarding people's food philosophies and how far they offer perspectives on cultural potentials and barriers for a transition towards more sustainable food patterns. Following up on the qualitative work presented in chapters two and three, we move on to chapters three, four and five that draw on a representative survey held in the Netherlands. This survey was designed to further explore and test the findings of the qualitative study. Chapter four focuses on the different types of motivation that consumers have for their food choices and it aims to account for them by drawing distinguishing parallels between the cultural and the individual level. Different types of motivation are related to values, beliefs, and sustainability relevant practices, such as the quantities of meat that people consume, the preference for organic or free-range meat and plant-based snacks as well as people's BMI. In order to move towards the application of previous results, chapters five and six explore pathways towards changing meat consumption patterns. In chapter five, it is argued, that the (partial) substitution of meat can only succeed when matches are found with current practices, values and beliefs. In order to stimulate effective change, new behavior must be to some degree congruent with the rest of the behavior of the consumer. The study tests a whole range of different meat-free meals that are currently feasible within Dutch food culture, including some innovative options that may become relevant in the near future. Based on current consumer practices, values and beliefs about various substitution options different pathways towards (partial) meat substitution are discussed. Different pathways for change can be supported by various arguments for a reduction of meat consumption. Chapter six explores the nature of the message that might be sent out to consumers, when considering the relationship between eating meat and climate change. We address people's willingness to change their meat consumption as a factor of their understanding and acceptance of the premise that they can make a big difference to nature and climate protection by choosing a meal without meat. The focal point of the analysis is that consumers' personal values regarding nature and climate protection may affect their willingness to change their meat consumption habits in different ways.

1.5 A brief note of reflexivity

My engagement with food started at a very early age. As the granddaughter of a family that earned their money running a small butcher's shop and the daughter of a business man in the meat industry, I grew up with the pleasure of eating meat. I still remember the intense anticipation of a sizzling sunday roast coming out of the oven on the occasion of a family meal that joined three, sometimes four generations together. The meat was not anonymous. Often, I would join

my father and grandfather to visit their own cows. They regularly drove out to their pastures to see how the animals were doing. I felt there was much valuation and respect for the animals until they were one day propelled onto the trailers with electric shocks and were driven off - always in pairs of two. They departed for the slaughterhouse where my father was employed, 15 minutes away. I also visited there sometimes. It was a grey and industrial place that opened to the outside world only through the docking stations of the trucks that arrive to pick up the meat. For me as an outsider it remained an eerie place because there was this missing link between the cows going in and the chunks of meat that would come out at the other end. I somehow managed that my imagination would not fill in the scenes that might unfold inside the building even though the sweet, disgusting smell and the occasional pig that would stick out of a garbage can in the yard were unmistakable signs of what was going on inside.

Compared to today's reality, such a story may almost be considered a romantic memory of the past. Slaughterhouses will often have increased tenfold in size, cows rarely see pasture and they will not receive any kind of personal treatment anymore. Today's reality, as Timothy Pachirat (2011) describes in his book *Every twelve seconds: Industrialized slaughter and the politics of sight* are slaughterhouses that process thousands of cattle a day with only a handful of people being involved in the actual killing. He argues that the blissful ignorance of the public is only possible because the killing and the unacceptable treatment of animals and people that have been institutionalized in the system are completely hidden from public view. It led Pachirat, who spent half a year working undercover in a slaughterhouse, to doubt the achievements of civilization. "What is considered morally or physically repellent by the vast majority of society is sequestered from view rather than eliminated or transformed", he argues. He criticizes not only the abuse and maltreatment of animals but also the exploitation of workers. The slaughterhouse my father used to work at fused with a gigantic factory just over the Danish border. The local facilities disappeared. Recent articles in the media demonstrate that also German slaugtherhouses are known to employ severely underpaid workers from Eastern Europe without labor unions or rights to a minimum salary. Thus, what Pachirat describes is no singular American case.

I became a vegetarian when I was ten years old, not after visiting my father's workplace but after seeing a documentary that described the cruelties towards animals who underwent the unhappy fate to be transported throughout Europe and make the boat passage to Africa to be slaughtered there or die somewhere on the way - of thirst, exhaustion, or due to maltreatment. This time, the images left nothing up to my imagination and I remember the agony they caused me and I felt deeply for these fellow creatures. I am steeped in the sad reality that is associated with the routinized mass meat consumption that is also the topic of this book. While it worked for me, Pachirat argues the solution to the problem cannot be found in a mass confrontation of the masses with the hidden reality that

is associated with cheap meat consumption. Exposing people to the production line may only force them to develop a tolerance for such activities. Among others, we have to find the right means to motivate people to make other choices and I truly hope that my work can contribute to such efforts.

In the meantime, I have given up vegetarianism and am now what is called a 'flexitarian'. I eat organic meat from a local butcher maybe once or twice every two weeks. It is always as special as that sunday roast. The work on this thesis made me realize that food connects us intimately with culture, nature and ourselves in a way that nothing else does in daily life. It has made me appreciate even more the fact that food consumption gives us a choice to think about our place in the world and how we want to relate to other people, fellow creatures and the natural environment. As Leon Kass (1994) rightly argued, otherwise "we will remain strangers to ourselves without a guide to that, which defines our humanity and which nourishes our hungry souls."

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Chapter 2

The organic food philosophy

A qualitative exploration of the practices, values and beliefs of Dutch organic consumers within a cultural-historical frame

"Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it's the only thing that ever has."
Margaret Mead

2.1 Introduction

Food consumption has been identified as an area of key importance if the world wants to progress towards more sustainable consumption (Carlsson-Kanyama & González, 2009; Stehfest et al., 2009). In Western societies, such as the Netherlands, this implies a transition towards less animal-derived proteins (Aiking, 2011; Reijnders & Soret, 2003) and, in general, more carefully produced food. This transition will not be easy, however, because the relationships between food producers and consumers are bounded by many economic, cultural, and geographic constraints, and all food seems to be embedded in a contested discourse of knowledge claims (Goodman & DuPuis, 2002). Moreover, to consumers, changes towards more sustainable food patterns seem only worthwhile when the changes not only enable their pursuit of lifestyles with a lighter environmental burden but are also perceived as rewarding (de Vries & Petersen, 2009). Organic food has the potential to meet these demands because it is more sustainable (Badgley et al., 2007; Thøgersen, 2010) and because it has become increasingly popular with consumers all over the world (IFOAM, 2011). In order to fully utilize this potential, it may be necessary to better understand the cultural context of the choice for organic food, because the cultural changes that will be needed to

shift towards a more sustainable society and associated food choices are profound (Aiking, 2011). In the past, several marketing studies have been done to identify consumer segments where market share can be increased (Aertsens, Verbeke, Mondelaers, & van Huylenbroeck, 2009; Hughner, McDonagh, Prothero, Shultz, & Stanton, 2007). Within this line of research, however, it tends to be forgotten that the emergence of organic food is associated with reflexive consumption (Goodman & DuPuis, 2002) and cultural changes in Western societies (Campbell, 2007). Also, and of particular interest, organic consumers seem to refuse a passive role in the food system. Taking an active role may enable them to resolve the alleged contradiction between environmentally responsible behaviour and a satisfying life (Brown & Kasser, 2005), for example, by understanding themselves as part of a natural order (Taylor, 1989). Hence, in this chapter we have chosen to put the cultural dimension of organic consumption central, because it may help to explain more in-depth what makes alternative food choices so valuable to these consumers. As Crompton (2011) argues, particular cultural values motivate people to express concern about a range of environmental and social problems, and such values are associated with action to tackle these problems. Our ultimate objective is therefore to derive insights that can facilitate the much needed transition towards more sustainable consumption patterns (Crompton, 2011; Jackson, 2005).

The approach on which our work is based can be characterized as an extended case study, which analyses the practices of particular individuals (i.e. the cases) in light of cultural patterns that have developed over several centuries. The purpose of this approach is to understand the case and its theoretical significance (Small, 2009; Yin, 2003). For theory development, a cross-case analysis involving about ten individuals may provide a good basis. A key theoretical concept in our understanding of the individual is the personal "food philosophy" that he or she might hold. A food philosophy refers to a cluster of practices, values and beliefs that evolves over a long period of time within a particular cultural context and is shared on a collective level. The notion of a food philosophy is inspired by the concept of a worldview (Naugle, 2002) or an inescapable framework (Taylor, 1989). These concepts refer to the cultural backdrop against which people orientate themselves on questions of what is good, valuable, admirable and worthwhile (Hedlund-de Witt, 2011). This backdrop, however, is largely implicit and unarticulated, and people may be unaware of its influence or even resist it (Taylor, 1989). However, through the interpretation of empirical interview data, one can uncover an underlying coherence or sense that can generate a better understanding of important dimensions of human life (Taylor, 1971). Based on the literature, we will explore the food philosophy of the organic movement by providing a concise historical and cultural background. To analyse the personal food philosophies of current organic consumers, we will present findings from qualitative interviews conducted with individuals in the Netherlands.

The interviews were conducted in 2010 as part of a bigger project that in-

vestigated food practices, values and beliefs among the Dutch population. The case selection was based on the sampling for range approach, in which the researcher identifies subcategories within the study's population and interviews a given number of people in each subcategory (Weiss, 1994). The subcategories were delineated according to the different food-related orientations identified in previous survey research (de Boer, Hoogland, & Boersema, 2007). The representative survey among Dutch citizens indicated four distinct value-orientations towards food based on the degree of involvement with food and a motivational focus on promotion versus prevention[1]. For our research, we focused on the "reflective" orientation, which entails a careful and mindful use of food and a preference for responsible products (i.e. high involvement combined with a prevention focus). The organic consumers were selected to represent this orientation towards food. According to the survey results, the "reflective" orientation can be found among roughly 14% of the Dutch population (de Boer, Boersema, & Aiking, 2009). As mentioned before, however, the present study does not search for statistical significance, but for theoretical significance. A more qualitative, interpretive approach is needed in order to reveal greater depth and meaning of consumer practices (Hughner, et al., 2007). By combining insights into the cultural dimensions of the organic movement with insights into the individual's motivation for using organic products, we will try to facilitate a more complete understanding of these consumers' practices, values and beliefs and the potential influence thereof on a more sustainable diet—more precisely, a diet less reliant on meat.

In sum, this chapter is organized into three sections. First, it provides a concise cultural background of organic food. Next, it presents the results of a qualitative interview study with consumers of organic food in the Netherlands. Finally, in this chapter we discuss the overall relevance of our findings in the context of the transition towards a more sustainable food system.

However, before moving on, we briefly reflect upon the assumption made above that organic food consumption is indeed part of a more sustainable diet that benefits social and environmental systems as well as human health (Lang & Heasman, 2004). Organic farming is defined as a holistic production management, which promotes and enhances agro-ecosystem health and avoids the use of synthetic materials to fulfil any specific function within the system (Codex Alimentarius, 1999). Furthermore it adheres to the principle of health as a state of holism, self-regulation, regeneration and balance and is exemplified by Lady Eve Balfour's quote "healthy soil, healthy plants, healthy people" (IFOAM, 2011). Despite these desirable goals, there has been some controversy about the degree to which organic production can contribute to sustainability, given the increased amount

[1]Promotion and prevention are key concepts of Higgins' psychological motivation theory (Higgins, 1997), Generally, a promotion orientation makes the person sensitive to gains, accomplishments, and advancement needs. In contrast, a prevention orientation makes the person sensitive to safety, responsibility, and security needs.

of land that organic production requires at the cost of nature reserves (Tilman et al., 2001) and the arguable benefits in terms of biodiversity (Hodgson, Kunin, Thomas, Benton, & Gabriel, 2010). On the other hand, it has also been shown that organic agriculture is capable of feeding the world sustainably (Badgley, et al., 2007), especially if farming practices that mitigate climate change are also sufficiently employed (Badgley & Perfecto, 2007; Scherr & Sthapit, 2009). In considering the market of organic food, however, fundamental contradictions have been identified between mainstream agro-industrial and alternative movement conventions, because increases in scale and standardization lead to the bifurcation of the organic sector and the watering down of its original values (Buck, Getz, & Guthman, 1997; Constance, Choi, & Lyke-Ho-Gland, 2008). Thus, a globalizing organic agro-food sector risks susceptibility to similar ills it aimed to cure in the first place (Raynolds, 2004). For instance, although it is debatable whether organic agriculture as a whole is becoming conventional, there is a growing influence of conventional agro-food commodity chains in certain sub-sectors of organic agriculture in the Netherlands (de Wit & Verhoog, 2007). While acknowledging that trends towards conventionalization in the sector and the development of an organic industry add another set of problems to the sustainability debate, it is crucial to also note the sector's role in society. At the very least the trend towards organic can be seen as a valuable driving force that stimulates conventional agriculture to adopt more ecologically integrated methods and inspires consumers to adopt new values and ideals that can give direction to more sustainable food practices (Lang & Heasman, 2004). The consumption of organic food has also been discussed in the context of a shift in worldviews that is taking place in the West (Campbell, 2007). According to Campbell, healthy and environmentally-friendly food consumption is something that is perceived as deeply satisfying and meaningful. The choice for organic food may have an underestimated religious undertone, providing people with purpose in life and a means to reconnect with nature (Campbell, 2007; Pilgrim & Pretty, 2010). Such orientations towards food may be understood in the context of contemporary spirituality and can have an important role in facilitating the transition towards a more sustainable society (Hedlund-de Witt, 2011). It is the food philosophy associated with the trend towards organic that we are particularly interested in.

2.2 A concise background on the organic movement

To gain insights into the cultural dimensions of the organic movement, a two-step research approach was used. In the first step, we identify long-term trends in Western culture that have shaped the origins and the development of the organic and natural foods movement. It should be emphasized, however, that it is not possible within the scope of this chapter to give a complete and historically

accurate description of these topics. In this exploration, we had to limit ourselves to highlighting some major themes. Food has always been an important symbol that can reveal what conceptions of nature our culture affords and how people might derive identity from it (Douglas, 1966; Fischler, 1988; Montanari, 2006). Specifically, we used philosopher Charles Taylor's acclaimed "Sources of the self. The making of the modern identity" (1989), because it provides a solid background on the development of Western culture and addresses in depth how changing patterns of thinking affected our conceptions of nature and the natural. The second step of our approach summarizes the history of organic food since the nineteenth century. In bringing together these particular works on culture and food, we tried to identify those cultural ideas that distinguish organic consumers and characterize their lifestyles.

In *Sources of the Self*, Taylor suggests that modern Western culture, even though it is now characterized as fragmented and pluralistic, builds essentially on two divergent cultural orientations. These orientations are highly relevant to understanding alternative food philosophies. They can be loosely tied to the period of Enlightenment in Western history and the Romantic era. The Enlightenment inspired patterns of thought that emphasize a rational understanding and scientific reasoning about reality, which implies abstraction and objectification of the world and the natural phenomena one can observe. In this sense, it broke away from the mystical understanding of nature that used to be dominant prior to the Enlightenment (Glacken, 1967). Nature, which includes the human body, is understood by constructing a correct representation of it in one's mind, thus making it a neutral object to observe and study (Taylor, 1989). This implies that nature has no meaning beyond its function and a value that is only dependent on utility. Reason empowers people to study and observe the natural world, which in turn can lead to ideas that nature can be controlled and manipulated. Taylor (1989) argues that this objectification and instrumentalization of nature leads to a separation from nature and our moral independence from it.

Partly as a reaction to the instrumentalization of nature, Taylor (1989) argues that Western culture turned to creativity, intuition and expressivity as a means to re-unify with nature. Mankind is then seen as an integral part of a larger order of living things that nourishes human life and creates bonds of solidarity within a mutually sustaining web of life. Even though Romantic religions of nature have died away, Taylor (1989: 384) argues that "the idea of being open to nature within us and without is still a very powerful one that is grounded in the understanding that mankind is part of a larger order of living beings, in the sense that their life springs from there and is sustained from there." This more embodied orientation towards nature inspires thinking that people should be careful and try to do no harm to nature. In this perspective, or even "way of being," nature is included in people's representations of self (Schultz, Shriver, Tabanico, & Khazian, 2004), and forms a part of their identities. As a result, modern culture is characterized by the tension between the two big constellations of ideas (i.e., Enlightenment

and Romantic views), and this tension becomes particularly manifest in the form of controversies about sustainability issues (Taylor, 1989).

The divergent cultural ideas are also directly reflected in the history of organic food. While nowadays there is a more prominent link between the organic movement and environmental activism forming in the late 1960s (Foss & Larkin, 1976), the roots of the organic movement actually run deeper. Ideas around organic farming developed almost independently in German and English speaking countries about a century ago. In Germany it was part of an influential movement that became known as the Lebensreform and consisted of various Reform movements resisting increasing industrialization, use of technology, materialism and urbanization that were shaping a new way of life. The Reform movement promoted the return to a more natural way of living that consisted of vegetarian diets, physical training, natural medicine and going back to the land (Vogt, 2007). Food was important due to its direct link with the natural environment, the agriculture's dramatic mechanization and industrialization, the loss of rural lifestyles and the associated self-sufficiency and independence (Vogt, 2007). Countries undergoing similar changes in the food system, such as Germany, the Netherlands, England and the United States, all exhibited cultural responses similar to the Lebensreform (van Otterloo, 1983). The Dutch Reform movement was directly triggered by the developments taking place in Germany (ibid).

Many people perceived the dramatic societal changes and the loss of traditional rural lifestyles as a threat to their moral independence. A self-regimented way of living and control over one's body were symbolic in averting this danger (Barlösius, 1997). The Reform movement was therefore associated with a moderate, sometimes ascetic lifestyle. It enabled the individual to feel self-determined and to live according to one's own moral and ethical principles, independent from behavioral prescriptions of government and industry. For example, the use of processed food products was avoided on these grounds. Due to its visibility and daily practice, food consumption was an exceptionally suitable domain for individuals to express their commitment to an ethical and self-determined lifestyle purely founded on one's ideals (ibid).

Vegetarianism was an important part of the lifestyle promoted by the Reform movement (Barlösius, 1997), as the consumption of meat is traditionally a morally contested practice (Fiddes, 1991). Followers also turned against products of the upcoming food industry and banned instant or canned products. Also, natural stimulants, such as tobacco, coffee, alcohol, sugar and strong spices, were rejected. Instead, raw vegetables and whole-wheat products were preferred (Barlösius, 1997). The essential question raised by the reformers was how human needs in general should be satisfied, which explains why the movement was equally concerned, for example, with housing, clothing and sexuality. The human body was conceived as a nexus of the individual's needs and the constraints of the societal system.

Gusfield (1992) describes cultural changes very similar to the Lebensreform

associated with the American "Natural Foods Movement." The movement had its origins in the 1830s, a period of intense religious reawakening and deep concern over the immorality and crime associated with increasing urbanization and the loss of traditional bodies of authority. One of the key reform thinkers was Sylvester Graham, a Presbyterian minister. He opposed modern food technology and considered the unrefined, the coarse, the pure and the raw to be healthy qualities while the refined, the smooth, the processed and the cooked, respectively, were objectionable (ibid). He dismissed refined white bread, the icon of the upcoming food industry, because it had less fibre than the common wholegrain breads and was baked outside the home. Stimulating foods, such as meat, coffee, sugar or alcohol, were equally abject because they were believed to excite the body in an unhealthy manner, just like sexual desires would. What characterized the philosophy was the capital importance of self-discipline and self-control against the temptations surrounding the individual.

The various organic and natural foods movements were not very successful until the 1960s. It was the publication of Silent Spring by Rachel Carson (1962) that became a turning point for both the modern organic and environmental movement (Kristiansen & Merfield, 2006). Silent Spring brought a whole new set of arguments against industrial farming, in addition to those that the organic movement had been pushing for many decades. Several new movements took up the moral stance towards food and continue to promote a more vegetarian diet and consumption of organic food. Hamilton, Waddington, Gregory, & Walker (1995) suggest that this food "alternativism" is often associated with New Age philosophy and a spiritual worldview (see also: Hedlund-de Witt, 2011). In fact, various studies claim that natural and health foods can be viewed in a spiritual context (Campbell, 2007; van Otterloo, 1983, 1999) and can be linked to spiritual practice, such as mindfulness meditation (Jacob, Jovic, & Brinkerhoff, 2009). From the very beginning, spirituality was also incorporated in the Lebensreform by reformers like Rudolf Steiner, who laid the spiritual foundations of organic farming (Kirchmann et al., 2008). The steady popularity of his esoteric philosophy, Anthroposophy, illustrates that the movement is still influential today. Nevertheless, people can also identify with "eating green" for more secular reasons (Jamison, 2003). The same is true for the feeling of connectedness to nature (Hyland, Wheeler, Kamble, & Masters, 2010).

In summary, the insights provided above highlight a number of themes that may explain why organic consumption has been characterised as part of a distinctive way of life (Schifferstein & Oude Kamphuis, 1998). These themes include a strong resistance towards food industry and technology, because they were perceived to impose consumption patterns that conflict with particular moral norms. Instead, people tried to conserve their independence and self-determination by orienting towards nature within as a source of morality. The inward orientation of their philosophy often led to spiritual associations and a belief that human needs are not only satisfied by material needs. Self-determination was associated

with the practice of a moderate lifestyle—the (partial) abstinence from meat and other "unnatural" foods. In the following section, we compare these insights with the food philosophies of contemporary organic consumers by discussing a cluster of themes that emerged from the interviews we conducted with consumers in the Netherlands.

2.3 Food philosophies of current organic consumers

In this section we move on to the findings from the interviews. Using the sampling for range approach (Weiss, 1994), we contacted 33 people via different avenues. 13 of them were assigned to the subcategory of organic consumers. Organic consumption in the Netherlands is growing steadily, but is still rather low, compared with other European countries (Bio monitor, 2010). The total market share in the Netherlands in 2009 was 2.3% (ibid). Roughly one-third of organic food is sold at specialized organic stores[2]. As we were interested in consumers who are relatively highly involved with food, we secured interviews with ten people we approached in organic stores in two Dutch cities, Amsterdam and Groningen, the former a more metropolitan, big city and the latter a more rural, small city. Other subcategories of participants were acquired from a hobby-cooking club, the Slow Food organisation and at regular supermarkets. The data used in this chapter come from the participants approached in the organic shops; other participants that mentioned they regularly use organic food were also included. Altogether 9 women and 4 men participated, varying in age from 18 to 76. Given that women shop more often in organic shops (Hughner, et al., 2007), this distribution is acceptable; even so, women were also somewhat more willing to participate. The participants' level of education was relatively high (ten had graduated from university), but they were not particularly wealthy. About half of them were self-employed and had an artistic or creative background. It seemed that their daily routines were comparatively flexible, enabling them to visit farmers' markets during the day or prepare a midday meal at home.

The interviews were introduced as a study on food practices in the Netherlands. There was no prior mentioning of themes relevant to the objectives of this study, such as environmental sustainability or organic food consumption. The researchers engaged participants in conversations aided by some simple questions asking them to describe what they had eaten the day prior to the interview, how they had prepared their meals, and how they shopped for food. These questions were only meant to start the conversation, and participants were allowed to develop their own stories from there, introducing topics that were relevant to them. The interviewers limited their interference to posing questions, inviting partici-

[2]We refer here to stores that sell the majority of their goods with organic, fair-trade or biodynamic certification. They typically also store Japanese foods and health food supplements.

pants to further engage in topics that they had brought up. The conversations lasted roughly an hour and were held, if possible, in participants' homes or, otherwise, in a public space. They were taped and transcribed verbatim. The real names of respondents are not provided to ensure their anonymity.

The interviews were analyzed according to the grounded theory approach (Charmaz, 2006). This approach encourages the researcher to learn what participants' lives are like and to be sensitive to how they explain their statements and actions. Subsequently, she constructs a theory that is 'grounded' in the data, instead of using preconceived, logically-deduced hypotheses (Glaser & Strauss, 2009). The analytical process involved coding the interview material and constructing conceptual categories from the emerging codes. The analysis of the interview data gave rise to three analytical themes that shed light on the food philosophies of organic consumers in the Netherlands. First, we discuss participants' feeling of connectedness with nature. Second, we discuss the notion of awareness. Third, we explain the value of purity.

2.3.1 Connectedness with nature

Participants expressed a philosophy of "doing what feels natural." Their concern for the naturalness of food made the choice of organic and seasonal foods attractive. They described feeling connected with nature, which triggered feelings of care and responsibility for animals and the natural environment. Nature, however, was not perceived as a separate entity. Rather, participants felt an integral part of nature. Care for nature, therefore, also meant to care for one's physical and mental health, as well as striving for vitality and overall well-being. For example, participants expressed their sense of connection by expressing how season changes and other natural processes correspond to changes in their physical and mental constitution, such as the following participant.

> "At the farmers' market, there's a clear offer of the season [...] I find it interesting to do something with the cabbage the moment it's there in wintertime, because I find it fits with the moment, because I have different needs and, then, I like to eat differently." (Mary)

Through their connectedness with nature, participants explained their discovery of the various interdependencies of food and nature. They also became aware of the farmers that farm their vegetables, and they became more sensitive to the issues of familiarity, trust and geographical vicinity.

> "Vegetables I buy organic. I have a veggie box. [...] To me it's important that it's farmed with care and that it has travelled as little as possible. And that it's as seasonal as possible, that it comes from a familiar environment [...] I try to think about the consequences of

> my consumption for the rest, for the environment [...] I think, first came the environment and gradually I've created a connection with the farmers, because it's nice that he knows about us, and you see him every week, and now there is a strong social tie." (John)

One participant, who was also a practitioner of Japanese yoga, explained that it is part of her food philosophy to eat food that is native to her home region and seasonal. She explained that the natural environment influences her inner constitution, and the consumption of food is a vital mediator in this. As various foods have different effects on the body, her goal is always to achieve a balanced constitution by matching the food she selects to the needs of her body. The participant described how she uses her feeling and intuition to access this source of knowledge.

> "Your constitution is also partly a result of the weather or the water that you drink. The vegetables that grow here in wintertime, like root celery, are typically warming vegetables. So, that's perfect, because that's exactly what we need then. So, it's natural to eat what's in season here and now [...] I grow physically and mentally stronger, simply because I eat the food that's compatible with my momentary constitution. [...] I eat based on my perception of my own body [...] It is very intuitive, actually." (Katie)

Another participant, who felt inspired by ideas from the macrobiotic and Chinese food philosophies, described a similar connection and a longing for a more intuitive relationship with nature. She argued that people have lost part of their connectedness to nature and, thus, also their intuition about what is the right way to eat.

> "The philosophy is that you're one with the cosmos, with the environment. So your food should be seasonal [...] and you try to eat the food that belongs with the climate you live in. I'm not so strict."

When asked why this philosophy appeals to her, she replied:

> "I like its intangible character. Centuries back, humans had to live with nature; they were dependent on it and adapted to it completely: with the seasons, with the moon. And all this knowledge has been lost. [...] In China it's still more alive, but Europeans also had it. [...] It's a certain feeling about how things need to be done that you cannot explain. But, in our society, this feeling with nature and your environment has weakened. I find it really interesting to try and get [this feeling] back." (Sally)

The connectedness with nature was also evident in people's concern for animals. All participants watched their meat consumption closely and had considerable concern about animal welfare and the inhumane treatment of animals in the agricultural industry. Most of them were or had for periods in their lives been vegetarians. All reported cooking vegetarian food regularly, as well as frequently buying organic meat–meat that is produced in a more responsible manner. If they find buying organic meat too expensive or if it is unavailable, they prepare vegetarian meals. Participants felt that they should eat meat in moderation, and they often doubted the healthiness of regular meat consumption. On top of this, animals were generally seen as sentient fellow creatures with a right to live under natural circumstances, such as those organic farms try to provide. Therefore, the consumption of organic meat was an acceptable alternative for participants. They strongly opposed intensive livestock farming systems, because, to them, the animals are treated like a commodity.

> "I don't like the fact that animals are seen as products. Maybe that's not the worst...but I think you have to treat animals differently from a bag of cookies. It's hard to explain, but it just feels wrong to me." (Lauren)

> "We do eat meat, but not regularly. And if we do, it's always organic. [...] What I find really important is the care for the animal." (Mary)

2.3.2 Awareness

Cooking and eating, especially with family and friends, were often described as a crucial moment of tranquillity and awareness in a busy life. Participants associated the moments that they can engage with food with a sense of well-being and happiness. They described their enjoyment in focusing on activities such as the food preparation, setting the table, making the plates look attractive, and eating the food. To them, these moments are in contrast to other daily activities, in which they often feel rushed and superficially engaged. Participants described a heightened awareness of their surroundings, as well as an awareness of their feelings and emotions.

> "I feel happy when I cook, when I have the time to do that [...] Enjoying is not only related to food, though, it's more about what happens here around me. In the evening I have the sun here and then, in combination with being outside, the tranquillity. Sitting here at the table and simply eating something tasty, that's what makes me happy. [...] To me, that's the ultimate pleasure: to find the peace and time to have awareness for that." (Mary)

> "It has a lot to do with attention and love. [...] I try to really make contact with food." (Emmy)

> "It can be really nice to enjoy food together, but I can also do it alone: when I'm really in the moment and enjoy what I eat or what I do in that moment, without really thinking about it. I mean, my head's always occupied, so I really enjoy when there are no thoughts, when I'm fully engaged in the moment. Of course, it should be a pleasant moment. Yes, that gives me peace and relaxation." (Lauren)

As these participants describe, their moments of awareness and attention to food were often qualified by the absence of thought and a feeling of being immersed in the activity of cooking or eating. This engagement and intense experience of the moment was something that fulfilled them with joy and peace. As the participant describes in the second quote, she establishes a sense of connection with her food by giving it attention.

Participants' awareness of the present moment made the entire context of a meal more salient. They experienced the sensual qualities of a meal: what the food looks like, what it smells and feels like, and what are the particular circumstances of the moment. All these factors contributed to the satisfaction they could derive from a meal. Likewise, they reported that their enjoyment of food was hampered when there was no time to pay attention.

> "What I really hate is rush. If there's rush, then all enjoyment is gone. That's really important. Then you don't see things anymore and you don't taste them anymore." (Thomas)

> "Engaging with food is the ultimate enjoyment for me, to find the tranquillity to have awareness for it. And stress or unhappiness I associate with having to eat an instant pizza, when I have no other choice." (Mary)

A heightened sensitivity to how one's body responds to food was also a dimension of participants' awareness. They frequently stated they rely on their senses to tell them what food they should eat. They listened to their bodies, when they wanted to find out how they should eat to feel good.

> "For a few years I didn't eat meat. I didn't react well to it, so I changed my food pattern. I felt better [...] I noticed that my body responds in a certain way to everything I eat. So, if you eat something and it gives you stomach ache, you don't want to eat that anymore." (Mary)

> "You adjust what you eat to your constitution [...] you judge your constitution by sensing what food does to you. So, if you take the energy from food, if you feel that something warms you up, you get a warm tummy, or often I notice my hands getting warm." (Katie)

This heightened awareness also included sensitivity towards one's emotional responses. Participants described how particular food-related experiences—either pleasant or disturbing—made such a profound impression on them that they had a sustained influence on their food practices.

> "I visited a slaughterhouse a few times when I was 16. I have two uncles who are butchers. I saw how the cows got a pin shot in the head and the pigs were electrocuted so quickly and immediately hung on the hook while all is still moving. That gave such an impact that shortly after I stopped eating meat." (Thomas)

> "I used to have a Scottish boyfriend. He made a lot of things himself, baked his own bread, all very idyllic. He was a fisherman by profession and through him I saw and learned about the fish, about the sea, about the salmon, the fish farms and the consequences [...] and I guess because of him, for me now the only alternative is to choose organic meat and sustainable fish. It's got to do with being engaged with your personal environment, what happens around you." (Mary)

There seemed to be a link between awareness and the intensity of memories that people described in relation with food. All participants had vibrant memories of formative experiences related to food, which they described in colourful details. Obviously, food consumption was often intimately tied to their emotional experiences and, therefore, left a deep mark on their memories.

2.3.3 Purity

Participants had developed particular strategies to decide how to eat and what is good to eat. Central to these strategies was the participants' self-determination and the idea that they behave according to their personal values and their individual intuition. They tended to have the opinion that "we" don't know what we are eating because food producers mix substances together and thereby obscure people's choices. Since it has become extremely difficult for consumers to judge the quality and composition of the food they buy, participants categorized food according to their understanding of purity (and related concepts, such as simple, basic, whole and raw). In what follows, we scrutinize in more detail what participants meant by these qualifications and how they enacted them in their practices. Purity was associated with food in a material sense, but also in an immaterial sense, as it referred to the moral purity of a particular food choice.

> "I like my food to be pure. I cook with few spices, so that the original taste of the product is preserved. The product remains itself, and you can really taste it." (Thomas)

> "I used to put too many things together, and then you don't taste the pure flavour. So, I went back to cooking pure food. I never buy instant stuff. If I prepare a sauce, I simply start from scratch– that's more pure [...] As soon as I lose myself in all kinds of ingredients that I don't understand, the more processed things are, the further estranged from the original product, the less attractive I find them to be." (Mary)

Participants associated purity with making sure that the essence of the food is preserved. Thus, authenticity and originality were important, in terms of sensual food qualities like taste, appearance, smell and feel. To preserve this essence, participants kept meals simple and ingredients few. Excessive use of spices, for example, was believed to obscure the true identity of the food. As the second citation illustrates, preparation from scratch was also important, as it helped participants to be aware of all ingredients. Therefore, when shopping, participants searched for raw foods, and they avoided processed foods, which were associated with artificial preservatives, chemical residues, E-numbers and added sugars. Also, the number of ingredients in a product served as an indicator of its purity.

> "For example I don't like instant yoghurts with readily added fruit and whatever ingredients there might be. I simply buy plain yoghurt, and then I add whatever I want to add. So, I know what I add. Pure... I prefer to buy the basics and then I'm in charge of mixing things." (Mary)

Another participant described the difference between the food that simply fills up the body and the food that really has the ability to nourish. He preferred foods that he considered whole and complete in terms of nourishment.

> "For instance, I hardly go for Chinese take-away. You're stuffed with feed rather than food. You get lots of rice, a tiny bit of vegetables and proportionally lots of meat."

When asked what distinguishes "food," he replied:

> "Well, food is the things that take some time to eat and digest, so whole wheat products, rye bread, vegetables, meat, not the things that disappear quickly." (Peter)

To him, the quality of food was expressed in the amount of time that was needed to eat something, as well as the length of time that he felt satisfied afterwards.

Another strategy to preserve the purity of a food is to try and preserve its natural appearance and form.

> "I like to serve all ingredients of the meal separately, so that they are visible [...] you see what you eat, nothing is hidden [...] no ornaments or additions that have nothing to do with the original product." (Thomas)

> "Also, when I have visitors, I don't serve everything hustled in a big pan, but I put things separate. So you can take what you like. Straightforward, elementary, and the food recognizable. I prefer that nothing is hidden!" (Helena)

> "When I say fresh, I don't just mean the due date, but also that it's not in cans. I want to pick the food myself; I have to see it for myself. [...] I think it's really important to touch the food [...] that's why I don't buy canned food; you just can't see it properly." (Sarah)

Participants contrasted "pure," "fresh," "simple," "basic," "plain," "original," or "organic" foods with "estranged," "processed," "instant," "complex," or "canned" foods. One participant explained that these categories of food reflect not only material qualities of food, but are also associated with her moral beliefs regarding what is a good way to live:

> "When I talk about unsprayed and organic, I mean something more archetypal, more natural. I feel that we are pushed into more and more artificial circumstances in our society. We're on the wrong track. I think these values that I talked about, just now, awareness, understanding what you need. Of course, one person can need something more than another person, even with food. I mean, some people have the need to travel around the world and then they should do that. But let's be honest, many people don't have that `need´ they only do it because everybody's doing it. I like when people really work out for themselves, thinking independently, what they actually need." (Emmy)

Thus, the immaterial quality of purity was associated with living a reflective life in which one would try to be modest and sensitive to one's own needs. This idea was also expressed repeatedly in the importance that participants attributed to temperance. Temperance was perceived as a means to be self-determined and to make choices according to one's personal values. For example, participants wanted to express gratitude and respect for food, especially when consuming foods originating from animals.

> "People have so many desires they want to satisfy immediately, but tasting is important. I mean, a fish has also been an animal; you don't just wolf it down. You have to have some respect for it. That's the kind of temperance we search for. [...] My daughter has a different attitude. [...] She wants instant satisfaction. And if she's hungry, something needs to be done about it, immediately. She's not engaged with taste." (Thomas)

Underlying this temperance was the wish to transcend the bodily desire to eat and to appreciate food on an immaterial level. Part of the enjoyment of food was, therefore, contemplating the meal more fully. This partial shift from the material to the immaterial dimension of food was also represented in the shift of attention from quantity to quality.

> "To eat organic meat reflects also my conscious choice to consume less, but better quality. It's expensive and that's why I don't eat meat two days a week. That's all connected. So I think you can't view it separately [...] and at the end of the week, I've spent the same amount as I would otherwise." (Michael)

Participants related temperance in their personal food consumption to the boundlessness and overconsumption that they perceived to be the current cultural norm, from which they wanted to distance themselves. The practice of temperance represented to them a shift away from desires and wants and towards their basic needs.

> "It feels best to me to use just what I need. All this excess and overkill that is the norm now doesn't appeal to me [...] What we often do, when we have leftovers, we eat it one day, skip one and then eat it again [...] I find it a sign of no respect to throw out food." (Emmy)

> "I think we [Dutch society] have an enormous overconsumption. We use much more than we actually need." (Lauren)

> "I buy what I need and try not to be manipulated by all the advertisements and special offers [...] this is what I see many people do: 'it's on sale, so I buy it.' But then at the end of the week, things are past the expiry date and are thrown out. That's a shame." (Peter)

> "This massive animal industry, I think it's appalling [...] Raising production is an end in itself! People have to buy different clothes every year, because of fashion, because of the economy. It's insane."(Helena)

These quotes illustrate that participants' particular food choices were associated with a rather critical view of society. They objected to the orientation towards consumerism, and they wanted to resist the manipulative influence of advertising and fashion. The practice of temperance was associated with an orientation inward, towards one's personal needs, that helped participants maintain an intuitive balance. They referred to the importance of being aware of one's body in order to assess the boundaries of what is enough and what is good to eat. This is also tied to the awareness that we described in the previous section.

> "I believe you have to eat moderately and healthy [...] I think when you are moderate then you don't fluctuate in weight and in how you feel physically. There is a kind of stability in it." (Theresa)

2.4 The organic food philosophy and its relevance to sustainability

Based on the history of the organic movement and personal stories of current organic consumers, we can highlight some key elements of the organic food philosophy. A central element of the stories was an intuitively felt connectedness with nature that goes beyond their care for plants and trees. It concerns a reflexive relationship with one's inner nature that is not separate from the "outer" environment and could therefore be described as transcendent (Hyland, et al., 2010). In accordance with our findings, Hyland et al. (2010) point out that people usually experience this sense of connection in an all-encompassing way: with regards to nature, places, other people and even the entire universe. This reminds us of Taylor's (1989) description of the wish to re-unify with nature and to feel an integral part of a larger order of living things. As the participants described it, experiencing this special connection requires a subtler language of feeling and awareness, which Taylor (1989) refers to as people's powers of expressivity and creative imagination.

Tuning into a special connection with inner/outer nature provides people with purpose in life and a means to reconnect with nature (Pilgrim & Pretty, 2010). In terms of Taylor (1989), therefore, the organic philosophy fits in with the Romantic worldview. Campbell (2007) has argued that the popularity of this view is connected with an important shift in the Western worldview, where the belief in a distant, personalized god is slowly being replaced by a belief in an undefined immanent divine force that unites humankind, nature and the cosmos as one. As a consequence, nature becomes sacred and animals are regarded with reverence, while human superiority and dominion of animal life are discarded (Campbell, 2007; Verdonk, 2009). Naturally, this shift has profound consequences regarding people's views of food, because their food practices are imbued with meaning and the moral dimension of food choice becomes more salient (Campbell, 2007).

This interpretation seems to fit with the Dutch context. The Netherlands has been characterized as one of the most secularized countries in Europe (Knippenberg, 1998), but at the same time, strong trends towards contemporary spirituality and religious seekership outside the traditional church have been observed (van Otterloo, 1999; Versteeg, 2007). Food consumption plays an important role in these trends to maintain a healthy body and mind and to improve oneself spiritually (van Otterloo, 1999). This orientation may also explain why participants are not very oriented towards asceticism that played an important role in the Lebensreform and the American Natural Foods Movement but is not mentioned in the literature on contemporary spirituality (Hedlund-de Witt, 2011). Nevertheless, while some participants emphasized the religious undertone of their practices, more secular interpretations are also possible and may give rise to the same practices (Hyland, et al., 2010). Participants could, for example, equally emphasize the importance of care for animals and nature and the solidarity they feel with other people. In general, it seems that a more value-laden approach to food is in line with the times.

Another key element is that the participants shared their self-determined, moral outlook on life. As Hamilton, Waddington, Gregory, & Walker (1995) put it, food practices of people with this orientation are pervaded by "a concern which goes beyond the material, a desire for a meaningful life, a moral life, one which is in harmony and balance, a desire for mental peace, even perhaps simply contentment and happiness." Gusfield (1992) and van Otterloo (1983) add that this orientation can be understood in the context of the individual that wants to protect her (moral) values against the pressures of civilization. A healthy, natural lifestyle and the discipline to abstain from desires that are constantly aroused by a consumption-oriented environment are experienced as part of the good life. Within this context, the relevance of moral themes, such as purity and temperance with regards to food (Kass, 1994; Rozin, Fischler, Imada, Sarubin, & Wrzesniewski, 1999; Rozin, Markwith, & Stoess, 1997), is evident, and it also emphasizes the timeliness of the ideas associated with the Reform movements.

A limitation of our study is that our description of organic and natural foods movements in Western countries was supplemented with an analysis of the food philosophy of organic consumers from only one of these countries, the Netherlands. This does not enable us to shed more light on the food philosophy of consumers in other Western countries that show similar, but not identical trends of changes in the food system, such as the United States, England and Germany. Although we expect the same basic tension between Enlightenment and Romantic views in these countries, there are many contextual variables that could be important to organic consumers. In particular, differences in transparency between organic and conventional agriculture can be reinforced by contextual factors, such as marketing strategies. In the United States, for instance, organic is framed as a "marketing label," and there seems to be more polarization between the organic and the conventional food chain than in Western Europe (Klintman & Boström,

2004). This means that organic consumers may have divergent opinions on the distinctive advantage of organic foods, dependent on the type of market or the maturity of the market in their country (Wier, O'Doherty Jensen, Andersen, & Millock, 2008). Future work should examine whether such differences in opinion are also associated with basic differences in food philosophy.

The question now is what is the relevance of the organic food philosophy for a transition towards a more sustainable food system? This question can be addressed at the level of individual behavior, in terms of being an example for conventional consumers, and at the level of social forces, in terms of having an effect on the organization of food systems. As Goodman and Dupuis (2002) note, although organic food consumption is not based on a formal social movement, the philosophies of these consumers appear to constitute a vital force in society. Therefore, the food philosophies can help to interpret societal trends and contextualize ongoing developments. Most importantly, the food philosophies were associated in a theoretically meaningful way with a number of practices that are considered more sustainable than conventional ones, namely the moderate consumption of meat, the choice for seasonal and organic ingredients and the use of less processed and fresh products (Carlsson-Kanyama & González, 2009; Thøgersen, 2010). This linkage may provide significant cultural leverages—that is, values that motivate people to express concern about environmental and social problems and invite them to adopt more environmentally friendly lifestyles (Crompton, 2011).

More specifically, there are at least four leverages that should be mentioned in the Dutch context. The first is cultivating the value of connectedness with nature. The second is cultivating the relationship between awareness and wellness. The third refers to increasing the transparency of moral aspects that are hidden in many food choices. And the fourth is shaping and supporting social norms that reflect the intrinsic value of temperance. In what follows, we discuss some examples of how these leverages could be applied.

Feeling connected with nature contributes to a feeling of responsibility and care for other creatures and the natural environment (Taylor, 1989). In the context of making more sustainable food choices, connectedness with nature is a value that needs strengthening, for example, in the context of urban development. Examples of how this can be done are the development of urban agriculture to enable cities to feed themselves from within or from its neighboring communities (Dixon, Donati, Pike, & Hattersley, 2009; Morgan & Sonnino, 2010). Various big cities, such as New York and London, are already working on food strategies for the future. Trying to localize food production, wherever feasible, is an important component of these strategies (Morgan & Sonnino, 2010). Also, new supermarket concepts that experiment with growing their products on site are interesting in this regard. More generally, initiatives that strengthen people's knowledge about the multiple links between food and nature, planting, harvesting and preparation may serve to increase a feeling of connectedness and they are also in line with the

wish for a more natural, self-determined way of living that was expressed in the Reform movements.

Second, we discussed the value of awareness. As the interviews illustrated, participants experienced independence and self-sufficiency, because they felt they could rely on their personal judgment regarding what is good to eat. This autonomy and the feeling of awareness itself were perceived as satisfying, also because participants felt that they were making choices in line with their personal values. By relying on their intuition and personal values, they felt less prone to external sources of influence, such as advertising. In terms of Taylor's framework, awareness is a crucial part of the expressive worldview, because it is a means to connect with inner /outer nature as a source of morality. Policy makers should acknowledge that this expressivity is a fundamental characteristic of Western culture that also pervades people's relationship with food (Delind, 2006). They may profit from this fact by communicating about often implicit underlying values associated with more sustainable food consumption.

Third, we discussed purity as a way of living a more meaningful, moral life (Campbell, 2007; Hamilton, et al., 1995). The critical, idealistic approach of organic consumers has stimulated the development of environmentally relevant certification and labeling systems, which exerts continuous pressure on producers to raise sustainability standards of their production and supply chains (de Boer, 2003; Lewis et al., 2010). Labeling efforts have also served to delineate between conventional and organic standards, providing a visual prompt to facilitate the purchase of more responsible products among a larger group of consumers (Morris & Winter, 1999). These labels demonstrate the salience of appealing to moral motives held by a core group in society, increasing the number of people that can make more responsible choices with less effort on their part.

Fourthly, against the background of the organic philosophy, the need for personal behaviour change can more easily be acknowledged and achieved. An important part of the Reform movement was about people's capacity for moral self-improvement as a practice of self-determination (Barlösius, 1997). Temperance, the consumption of pure foods, and abstinence from meat were all ways in which Reformers practiced their moral values. As the interviews illustrated, these practices are still in use today (de Boer, et al., 2007). Policy makers may implicitly or explicitly support social norms that reflect the intrinsic value of temperance. This could be done, for example, by promoting the consumption of large amounts of meat as normatively unacceptable.

2.5 Conclusion

In this study, we have made an exploratory effort to contribute to a better understanding of the cultural context of organic consumption. We have done this by trying to combine two levels of analysis: on the one hand, a top-down perspective

on long-term developments in Western culture; on the other, a bottom-up perspective on contemporary organic consumers' practices, values and beliefs. We have identified some important themes relevant to organic consumers today, and we have shown how these are rooted in a typically Western cultural background.

Organic consumption is interesting from the perspective of more sustainable food choices. Despite controversies regarding the expansion of organic production, the organic movement as a whole can be seen as a valuable driving force that stimulates the continuous improvement of food quality and inspires consumers to adopt new values and ideals that can give direction to more sustainable food practices. The feeling of connectedness with nature, awareness and purity are values that can be strengthened culturally in relation to food.

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Chapter 3

The gourmet food philosophy

Are the values of gourmets adaptable to moderate meat consumption?

3.1 Introduction

The high consumption levels of foods of animal origin, especially meat, have been identified as one of the most relevant topics to be addressed if consumers are to shift towards a more sustainable diet (Cole et al., 2009; FAO, 2006; Leitzmann, 2003; Pimentel & Pimentel, 2003; Reijnders & Soret, 2003; Stehfest et al., 2009). In Western European countries like the Netherlands, where meat consumption has been stabilizing around 86kg pp/py, such a transition implies a partial substitution of foods of animal origin by vegetable foods (Aiking, 2011; Gerbens-Leenes, Nonhebel, & Krol, 2010; Smil, 2002). Policy makers in government and industry, who intend to influence meat consumption among consumers, should take into account that meat substitution and desirable dietary changes cannot be considered in isolation from people's food-related practices, values, and beliefs, or food philosophies that are manifest on the individual and on the collective level (de Bakker & Dagevos, 2010; Fischler, 1988). More generally, the adoption of a more sustainable diet is likely to require that people's food philosophies change on a fundamental level. To this end, it is helpful to explore societal trends that potentially challenge dominant cultural assumptions and could enable transitional changes of behavior (Hedlund-de Witt, 2011). These trends may be promoted by movements that distance themselves in various ways from the dominant highly rationalized food system and an instrumental approach towards the natural environment (Taylor, 1989). One example of this is the distinct food philosophy of the organic movement, which promotes nature connectedness, mental awareness, and purity (Schösler, de Boer, & Boersema, 2012b). However, there are other food philosophies that are giving a new meaning to food consumption and may be equally important with regard to promoting more sustainable food choices.

We refer here to the gourmet food culture (Johnston & Shyon, 2007). Traditionally, the gourmet food culture and associated food practices have often been interpreted as a means of social distinction for the upper class (Bourdieu, 1984; Elias, 1978; Mennell, Murcott, & van Otterloo, 1992). The increased sophistication of tastes and consumption patterns is captured in the term "gastronomy" (Miele & Murdoch, 2002). While high status used to be synonymous with French cuisine, contemporary studies have underlined that the repertoire of high status foods is broadening (Johnston & Shyon, 2007) at least in the US. Moreover, high status within French cuisine has also shifted from an emphasis on rich and ornate combinations of food to a new concern for fresh, seasonal ingredients and simple treatments (Miele & Murdoch, 2002). While Johnston & Shyon (2007) criticize contemporary gourmet culture as a novel means of social distinction, mainly based on promoting the "authenticity" of foods that are often not widely available to a larger public, gourmet culture has also positively changed the gastronomic merit of certain foods (Gomez & Bouty, 2011). Vegetables, for example, have acquired a new status, which has led to "a seismic shift in the French culinary mind set", as Gomez and Bouty (2011) quote a newspaper article from The Globe and Mail in 2007: "The best chefs are now treating vegetables with the same respect once reserved for foie gras." (ibid)

While haute cuisine may still be an exclusive adventure, it is highly likely that developments in this field will spread to other social strata and influence food practices on a much larger scale(Montanari, 2006). Just as certain foods will turn into "cultural goods", making them desirable to the middle and lower classes (Bourdieu, 1984), certain food philosophies may become equally attractive. Hence, the relationship between these food philosophies and more sustainable food consumption patterns is an important matter to investigate. In this chapter we pose the question of how the food philosophy of gourmet consumers may trigger people to adopt more sustainable food choices, specifically with regard to the consumption of less meat. In order to hone in on the gourmet food philosophy, we discuss some theories that can help us understand gourmet food philosophy in a larger interpretive frame of cultural change. Furthermore, we discuss the philosophy of the Slow Food Movement as an outstanding contemporary societal actor that disseminates and develops gourmet food philosophy among ordinary consumers. The organization has inspired many people beyond its now 100,000 members and has increased consumer awareness about food policy (van der Meulen, 2008). While the movement is believed to have the potential of altering dominant cultural assumptions regarding food on a collective level (Germov, Williams, & Freij, 2011), to our knowledge no research has addressed the food practices of Slow Food members from a sustainability perspective. While gourmet food culture is obviously a complex phenomenon, the intention of the current research is to use studies on gourmet culture as a background to discuss the practices, values, and beliefs of individual gourmets from a sustainability perspective.

The approach on which our work is based can be characterized as an extended case study, which analyses the practices of particular individuals (i.e. the cases) in the light of cultural patterns that have developed over time. The purpose of this approach is to understand the case and its theoretical significance (Small, 2009; Yin, 2003). For theory development, a cross-case analysis involving about ten individuals may provide a good basis. A key theoretical concept in our understanding of the individual is the personal "food philosophy" that he or she might hold. A food philosophy refers to a cluster of practices, values and beliefs that evolves over a long period of time within a particular cultural context and is shared on a collective level. The notion of a food philosophy is inspired by the concept of a worldview (Naugle, 2002) or an inescapable framework (Taylor, 1989). These concepts refer to the cultural backdrop against which people orientate themselves on questions of what is good, valuable, admirable and worthwhile (Hedlund-de Witt, 2011). This backdrop, however, is largely implicit and unarticulated, and people may be unaware of its influence or even resist it (Taylor, 1989). However, through the interpretation of empirical interview data, we can uncover an underlying coherence or sense that can generate a better understanding of important dimensions of human life (Taylor, 1971). Based on the literature, we will explore the food philosophy of the organic movement by providing a concise historical and cultural background. To analyze the personal food philosophies of current gourmet consumers, we will present findings from qualitative interviews conducted with individuals in the Netherlands.

The interviews were conducted in 2010 as part of a bigger project that investigated food practices, values and beliefs among the Dutch population. The case selection was based on the sampling for range approach, in which the researcher identifies subcategories within the study's population and interviews a given number of people in each subcategory (Weiss, 1994). The subcategories were delineated according to the different food-related orientations identified in previous survey research (de Boer, Hoogland, & Boersema, 2007). The representative survey among Dutch citizens indicated four distinct value-orientations towards food based on the degree of involvement with food and a motivational focus on promotion versus prevention. For our research, we focused on the "taste" orientation, which entails an adventurous and varied use of food and a preference for quality products (i.e. high involvement combined with a promotion focus). The Slow Food members and hobby cooks were selected to represent this orientation towards food. According to the survey results, the "taste" orientation can be found among roughly 17% of the Dutch population (de Boer, Boersema, & Aiking, 2009). As mentioned before, however, the present study does not search for statistical significance, but for theoretical significance. A more qualitative, interpretive approach is needed in order to reveal greater depth and meaning of consumer practices (Hughner, McDonagh, Prothero, Shultz, & Stanton, 2007). By combining insights into the cultural dimensions of the Slow Food movement with insights into the individual's motivation, we will try to facilitate a more com-

plete understanding of consumers' practices, values and beliefs and the potential influence thereof on a more sustainable diet-more precisely, a diet less reliant on meat.

In sum, the present chapter is organized into three sections. First, it provides a concise cultural background on gourmet food culture and Slow Food. Next, it presents the results of a qualitative interview study with members of Slow Food and a hobby cooking club in the Netherlands. Finally, the chapter discusses the overall relevance of our findings in the context of the transition towards a more sustainable food system.

3.2 A concise background on gourmet food culture and Slow Food

To gain insight into the cultural characteristics of gourmet consumers, it is necessary to understand their food philosophy in a larger interpretive frame. While it is impossible to provide a historically accurate representation of socio-cultural developments that influenced particular food consumption patterns, we highlight some important themes from the literature and from the history of the Slow Food movement. To begin with, it should be clarified, what exactly is referred to as "gourmet food". The term "gourmet" originally came into the English language from French, and it denotes a person who takes a discriminating and informed interest in food, and "gourmet food" is that which will supposedly appeal to such a person (Davidson, 2006). Thus, certain traits must qualify food as gourmet. Johnston & Shyon (2007) argue that in contemporary culture a dominant frame which qualifies gourmet food is authenticity. Authenticity is not inherent in the food but certain qualities - such as artisan production, local settings, honesty, integrity, and dedication to core principles - are framed to constitute it. Authenticity is a construction that is employed widely beyond culinary culture (ibid). With regard to food, the authors identify four strategies for validating food as authentic: geographic specificity, artisan production (handmade and small-scale), personal connection (food with a face) and historicism grounding food in tradition.

The trend towards authenticity has also been identified in studies of consumer culture. Campbell (2005) argues that there exist a significant and growing number of modern consumers who strive to express themselves in meaningful and unique ways by means of what he calls "craft consumption". He describes a desire of people to engage in creative acts of self-expression and hereby integrating commodities into their own individual world of meaning (ibid). This trend is particularly visible with regard to various food practices, such as acquiring extensive knowledge of food and preparing a meal skillfully from raw ingredients instead of selecting the convenience option. Involvement in the design and production of what is to be consumed is considered a means to escape the alienating

influence of progressive commodification and marketization. By developing skill, knowledge, judgment and passion for a craft, the person creates something that is of unique meaning to her, feels authentic and expressive, and serves as an intellectual reflection on her practices (Campbell, 2005; Miele & Evans, 2010; Sennet, 2008). Campbell recovers the meaning of craft within the domain of consumption, from social critics such as Marx and Veblen, who regarded the work of craftsmen or -women as the most quintessential of all human activity. It was seen as ennobling and an ideal means through which individuals could express their humanity. Consequently, craft production was considered counterpart to the rational, alienating processes of factory-organized machine production (Campbell, 2005). From a socio-cultural perspective, the theory of craft consumption exposes some important parallels with the philosophy of Slow Food.

Within the sociological literature, Slow Food is understood as a countercultural movement to the increasing rationalization of the food system over the past 50 years, which focuses on cheap and efficient mass production in the food industry (Lang & Heasman, 2004; Ritzer, 1996). Particularly, with regard to animal farming, the industry has been extremely successful in catering to the growing demand for meat, doubling consumption per head in the second half of the 20th century (Smil, 2000). In Western countries the rational food production system tends to produce highly standardized meat, which is commonly sold prepackaged in supermarkets so that customers tend to forget about the link between the end product and the killing of an animal (Vialles, 1994). Rationalization has also shaped many practices at the individual level. For instance, it accentuates the repetitive and routine character of many practices, such as grocery shopping (Thomas & Garland, 2004) or cooking. It can lead to consumers being almost mindless in the kitchen (Verbeke & Vackier, 2004), captured by a convenience orientation towards meal preparation (Candel, 2001). Consumers are efficiently influenced by the food industry by means of product marketing, commoditization and an extensive selection of convenience products. The system is barely transparent and consumers have in fact little control over exactly what they eat (Lang & Heasman, 2004).

These rationalization processes were perceived as a threat to culinary traditions, particularly in countries like France and Italy (Fischler, 1999). This forms an important element to understanding what sparked the Slow Food movement: in fact, it took off in the 1980's as a reaction to the opening of the first McDonald's restaurant in Rome (Hodgson, Toyka, & Petrini, 2007). The activists felt that the forces of standardization and industrialization threatened their rich cultural heritage and the distinctiveness of local societies that was represented in the tastes of their regional cuisine. According to Miele & Murdoch (2002), Slow Food entails the tacit knowledge of local traditions, (craft) skill involved in reproducing traditional cuisines and a connectedness between human skill and knowledge, local traditions and local ecosystems. Therefore, Slow Food's intentions run much deeper than a simplified ban on fast food, and instead promote

an entire philosophy of Slow Life (Petrini, 2004).

The Slow Food movement originated from a group of left-wing activists in Italy, with Petrini himself having been a member of the communist party. Their propaganda for eating and drinking well was received with great suspicion by other left-wing political peers, as they mainly promoted austerity and vegetarianism (Petrini, 2004). Gastronomic pleasures were associated with the right-wing establishment, with affluence, luxury and indulgence, because gastronomic associations were a means for the nobility and bourgeoisie to unite in inaccessible elite circles (ibid). The "new hedonists" or "gluttonous democrats", as they called themselves, had no such elitist ambitions towards cultural exclusiveness. Their manifesto testifies that they envision a better world for all, if mankind can rediscover and savor the pleasures of slow life through the enjoyment of food. They argue that people need to shake off the rule of the machines that have come to determine their lives and have turned them into slaves of hastiness, which is generally misinterpreted as efficiency (ibid).

The reach of Slow Food is not limited to countries with strong culinary traditions, which indicates that the values they promote resonate with various cultural backgrounds. Today the movement has spread to 153 countries (Slow Food, 2010), testifying to its international appeal. In each country, the philosophy of the Slow Food movement has been transformed into the philosophy of its members. Interpretations may differ according to the particular culture of the country, as well as individual preferences and interpretations. In order to understand the particular context of the participants to the current study, it should be added that the Netherlands is not known for its pride in culinary traditions; the overall emphasis has always been on rather practical and functional consumption (Jobse-van Putten, 1995; van Otterloo, 2000). Furthermore, the country has a highly industrialized food and livestock industry and food retail is also very structured, with one large supermarket chain covering close to 33% of the entire food market (ref). As illustration of the circumscribed valuation of local cuisine, in 2008 the Netherlands earmarked 6 products for the certification of protected geographical status, while countries like Italy and France requested 165 and 156 products respectively (EU, 2008). Slow Food in the Netherlands has roughly 3,000 members (Slow Food, 2011) and it has a very active branch of young people, organized in the Youth Food Movement (YFM). Compared to countries like Italy, Germany or the United States, the Dutch branch is small. It has been independent only since 2008 (ibid).

In summary, this background overview shows that gourmet culture is not only a means to establish social distinction but that it can also be understood as setting new food cultural standards throughout society, where geographic specificity, craft production and consumption, personal connections and food traditions are found important. As the background literature illustrates, Slow Food is more than a restorative response to the threats to culinary traditions. It is an emergent movement that has crystallized several broader cultural themes, such as a

heightened involvement with food and a reaction against increasing rationalization and standardization of food practices (van der Meulen, 2008). The gourmet food philosophy may give rise to a new stance of enjoyment and pleasure of a more sustainable diet (Slow Food's "new hedonism") balancing existing associations of dietary change with austerity and moral purity. In order to develop a better understanding of how such cultural trends might translate into individual food practices, the next section will focus on the food philosophies of Dutch gourmets.

3.3 Food philosophies of current Dutch gourmets

In this section we move on to the findings from the interviews. Using the sampling for range approach (Weiss, 1994), we contacted 33 people via different avenues. 15 of them were assigned to the subcategory of taste-oriented consumers, 3 women and 12 men, varying in age from 35 to 61. As we were interested in consumers who are relatively highly involved with food, we secured interviews with members of a hobby cooking club (HCC) and of Slow Food (SF). Other subcategories of participants were acquired from organic stores and at regular supermarkets. People who were clearly taste-oriented, were also added to the sample as gourmets (G). Within the subcategory of taste-oriented consumers, the participants' level of education appeared to be relatively high (fourteen had graduated from university), and participants were relatively wealthy. They all had Dutch nationality and lived in various parts of the Netherlands, some in rural and some in more urban environments. The reasons why people had got involved with Slow Food differed widely. Some had faced health issues, others had met people who were already more involved with food, again others simply stated gaining awareness of the social and environmental problems associated with the conventional food system. In accordance with the literature (Lake et al., 2004), many participants stated they had developed a more reflective attitude towards food around the age of 30, which can explain the fact that our participants were all slightly older. The average age of Slow Food members in the Netherlands is 46 (Slow Food, 2011).

The interviews were introduced as a study on food practices in the Netherlands. There was no prior mentioning of themes relevant to the objectives of this study, such as environmental sustainability or gourmet food consumption. The researchers engaged participants in conversations aided by some simple questions asking them to describe what they had eaten the day prior to the interview, how they had prepared their meals, and how they shopped for food. These questions were meant to start the conversation, and participants were allowed to develop their own stories from there, introducing topics that were relevant to them. The interviewers limited their interference to posing questions, inviting participants to further engage in topics that they had brought up. The conversations lasted roughly an hour and were held, if possible, in the home of participants or, otherwise, in a public space. They were taped and transcribed verbatim. The real

names of respondents are not provided to ensure their anonymity.

The interviews were analyzed according to the grounded theory approach (Charmaz, 2006). This approach encourages the researcher to learn what participants' lives are like and to be sensitive to how they explain their statements and actions. Subsequently, she constructs a theory that is Ôgrounded' in the data, instead of using preconceived, logically-deduced hypotheses (Glaser & Strauss, 2009). The analytical process involved coding the interview material and constructing conceptual categories from the emerging codes. The analysis of the interview data gave rise to three analytical themes that shed light on the food philosophies of Slow Food and gourmet consumers in the Netherlands. First, we discuss participants' pleasure in taste, then we move on to the value of food competence. Third, we explain the notion of social relatedness.

For a first impression of participants' practices we start with a few examples of meals they had prepared the day prior to the interview. The dishes described here indicate that many foods of Italian and French origin were very popular. Six of the eleven dishes described here were pasta dishes, and French dishes such as Coq au vin, ratatouille and oeufs pochés were named as well as the French Pinot Noir. Vegetables such as pumpkin, celery, leek, cauliflower, chicory and spinach were mentioned as prominent ingredients. Three meals were vegetarian and four meals were prepared using leftovers from previous days. Apart from the chicory with ham and cheese sauce, none of the dishes are particularly traditional Dutch cuisine, even though they could still feature many locally grown ingredients and local artisan breeds, such as the Kemper chicken. It seems, therefore, that Dutch gourmets are focused on protecting local, small-scale produce but the dishes they prepare are strongly influenced by French and Italian cuisine.

Table 3.1: What some participants had prepared the day prior to the interview

Roland, 54 (SF[a]): "I had this pasta dish with veal tongue, pumpkin, celery and some leek, and I mixed in some horseradish. I used all kinds of leftovers."
Boris, 39 (SF): "I had some beautiful pasta sauce left over from the day before. That was not enough, so I added a good lacing of Pinot Noir and poached some eggs in it. So, actually I made oeufs pochés. A light meal with whatever was in reach in my fridge."

[a] The abbreviations in the table again refer to Slow Food (SF), a hobby cooking club (HCC) and other taste-oriented eaters (G)

Kevin, 46 (SF):"We had home-pickled blackthorn berries, pasta, baked peppers."

Mary, 45 (SF), Kevin's partner: "Yes, but not just any pasta, very special pasta, imported by him, found by us. They are kind of little rolls, quite artisan. I think they're made by hand. You could see that, because they were all a little different."

Leo, 41 (HCC): "Yesterday we had chicken fillet from the Kemperland[a] with ratatouille."

Jill, 61 (SF): "Yesterday was a bad day. I wasn't home. I had a dinner meeting, so I took only soup and bread. Not that it was bad, it was okay, just poorly prepared."

Robert, 38 (HCC): "I had Coq au Vin with a salad made of spinach and goat cheese and some other things mixed in, and I had some puree. It was all leftovers from the day before, except for the salad."

Marcus, 35 (HCC): "I had pasta and a kind of pesto mix that we made ourselves. Oil, pine seeds and basil and Parmesan cheese. I grind it all in a mortar and then throw it on the pasta."

George, 47 (SF): "Yesterday I had chicory with ham and cheese sauce and boiled potatoes."

Lily, 76 (G): "I prepared cauliflower, red peppers, onion and ground veal as a sauce to spaghetti."

Stan, 43 (G): "We came home late after a party and prepared some leftover pasta that was still in the fridge."

[a] A particular breed of artisan raised chicken.

3.3.1 The pleasure of taste

When describing their food practices, the gourmets would primarily emphasize the pleasure associated with food and eating. The participants ate first and foremost to enjoy and indulge in stimulating taste experiences. Participants frequently expressed themselves in lyrical terms about the different aromas, textures, feel, and looks of food, which infatuate all their senses. According to participants' descriptions, the taste reflected the authenticity and uniqueness of a particular food, and the overall care with which it was produced. Pleasure of taste was therefore often associated with artisan, preferably small-scale, production. Participants felt that the pleasure of taste related to various qualities such as the circumstances of food production and the 'spirit' in which this production had taken place. The wellbeing of the animal and careful slaughter, for example, were considered to contribute directly to the taste of the meat and the pleasure with which it could be consumed. This theme was also associated with enjoying a great

variety of foods and the ability to detect a wide scale of different flavors in foods. Some citations illustrate these points below, although they miss the enthusiastic voices, facial expressions, and gestures that best expressed the participants' pleasure associated with food and eating.

> "Wonderful! The smell and the taste of fresh mushrooms, that really cheers me up! In fact, every meal that we prepare from fresh vegetables – beautiful green beans, for example. And when the onions are in the pan for one minute, my husband already raves about the lovely smell in the house. We enjoy this so much." (Lily)

> "I just love going out to buy food on Saturdays, I browse the farmers' market, thinking 'what shall I prepare tonight?' That's fantastic, I really enjoy it."(Arthur)

The choice of shop was considered extremely important with regard to pleasure. People like to take time shopping for food and they want to enjoy the activity. Participants enjoyed shopping in specialty stores, such as butchers, cheese shops or ethnic food stores.[1] At the same time, they criticized the dullness of the experience of shopping in supermarkets.

> "I go to the Turkish butcher, because I enjoy the fact that I can point at big chunks or that he pulls a half animal out of the cool room, and I can get kidneys, because they still sell that kind of stuff.[. . .]I know that's not organic, but okay. If anyhow possible however, I'll avoid the prepackaged things from the supermarket." (Boris)

> "It makes me so sad when I see the selection of vegetables in a regular supermarket. Of a hundred things you can eat, they offer ten." (Boris)

Various kinds of specialty stores, that were not big supermarkets, were preferred by participants. Participants argued for seeking a mixture of good taste, a large variety of fresh, sometimes exotic foods, as well as a good bargain in these particular shops. They also believed that the supply chains of specialty shops were shorter, volumes smaller and the choices more diverse, so that shops could retain a more artisan character, but the entire pleasurable experience was determined by the mix of the factors above. More generally, it seemed that the motive of pleasure would sometimes outweigh considerations of animal welfare or environmental protection. This became clear, for example, with regard to the purchase of meat. As the participant described in the quote above, he would

[1] There are various ethnic food stores in the Netherlands that cater to the Moroccan and Turkish population. The stores offer a wide variety of fresh meat cuts and bulk vegetables. Their fresh produce is usually offered unpackaged and they sell a variety of products that regular supermarkets do not offer.

prefer buying the meat of a Turkish butcher because he enjoyed the way in which it was offered. The participant also emphasized that he enjoyed being able to speak with a skilled person behind the counter.[2]

While some mentioned using organic butchers because of a more artisan approach, participants' attitudes towards organic food in general were quite ambivalent. They often felt that the attention to pleasure and taste was subordinated to goals of environmental protection and animal welfare. If he had a choice, one participant argued, he would prefer freshly cut meat from a Turkish butcher, to organic pre-packaged meat from the supermarket, even though the superior quality of organic meat was widely agreed upon among participants.

Pleasure was also derived from touching and smelling the food. This experience, however, is hardly possible in Dutch supermarkets that nowadays tend to seal even almost all their fresh produce. Participants felt that this was a sign of people's alienation from food and nature, in the sense that ordinary consumers don't want to recognize its natural origin anymore. They felt that awareness of the blood and dirt that are part of the natural origin of food was replaced with an exaggerated pickiness about food and an overemphasis on hygiene and associated fear of contamination.

> "Why shouldn't I be allowed to hold that cauliflower in my hand, before I buy it? Why does it have to be sealed? It seems like mankind has completely lost touch with the earth and all it brings forth. All has to be portioned, cleaned. Please let me buy the tongue that still has the larynx attached to it, so I can see what the air-pipe of a cow looks like." (Boris)

> "A while back I got into a fight with the fish monger because I wanted to touch and smell his fish. [...] O, and carrots in the supermarket, you can't even get them anymore. Yes, cleaned and cut in a bag, but I don't want that." (Arthur)

Elaborate descriptions of the preparation of particular meat cuts were quite common among participants. The handling of meat was generally considered as a pleasurable activity. The use of organ meats or the preparation of more exotic pieces, such as the cheek of a calf, pork liver or kidneys were also discussed. Participants enjoyed the craft involved in preparing the meat and the obviousness of its natural origin. Particularly, with regard to meat then, authenticity of the product was on top of participants' minds. In this context, meat substitutes were mentioned frequently. They were discarded mainly due to their lack of authenticity, as the substance was meant to imitate meat. To these people, this underlined a trend of alienation and 'deformation' of food, spoiling the pleasure one could derive from it.

[2]While many Western European countries have maintained personal service for meat in supermarkets, this tradition has almost completely disappeared from Dutch supermarkets.

> "To me food is a part of nature. And therefore I think everything should be as natural as possible. Yes, you eat a piece of nature."

Being asked what would be unnatural to him, he responds:

> "Well, for example a meat substitute which resembles and looks like meat but it is not meat. [...] There are plenty of alternatives, if you just look a little bit further." (Robert)

> "If I choose to eat meat free, then it's because there is a wealth of vegetables, mushrooms and all kinds of things." (Arthur)

A pleasurable experience of food was strongly associated with food quality. Participants understood that superior quality is a scarce good that comes at proportionally higher prices. Quality was valued above quantity, so that some had made conscious choices to reduce their meat consumption in order not to have to sacrifice taste. While participants were very fond of meat, they were not regular meat eaters. Most participants were very well informed with regard to the detrimental environmental and health effects of eating large quantities of meat. Various participants mentioned that they compensated financially for the purchase of high quality meat by simply buying smaller amounts. The pleasure associated with quality could therefore be considered as the most important driver behind participants' choices.

> "We want to eat another kind of meat. If we did that every day it would be unaffordable. It's a conscious choice: we go for top quality but then simply less. [...] we don't spend more because we simply eat less." (George)

3.3.2 Food competence

The second topic we would like to discuss here is the value that participants attached to food competence. This could either concern participants' own competences or the ability to recognize them in other people. Practices such as gathering, preparing, cooking and consuming a meal were carried out carefully. This did not mean that people would necessarily take hours to prepare every meal, but the way in which everything was done mattered to them. Competences conveyed an aesthetic understanding of food practices.

> "I find cooking is something aesthetic, just like the presentation of food. When I cook, I watch what kind of color something has. The colors should match and the presentation is a part of that and also how the table has been set."

When asked why this was important to him, he answered:

> "Well, I mean, you wouldn't hang up an ugly painting on the wall? I like beautiful things and that applies to computers, cameras and photographs – and also to food." (Robert)

In different ways, participants in this group illustrated that food competence was valued for the sake of the autonomy that it provided them with. One participant described, for example, how cooking from scratch was important to him because that way he felt he had more control over what he ate. This also required some basic cooking skills, however, as well as the ability to find unprocessed ingredients. Competence and the associated autonomy turned out to be a crucial means for participants to make more independent choices regarding where to shop and what to buy. Instead of supermarkets, participants frequently mentioned having their addresses, which referred to their personal list of various specialized stores. Participants felt that supermarkets were superimposing a dominant food pattern on them, which they found patronizing, also with regard to their own competence to select the kind of food that they considered right. As a result, many tried to avoid using supermarkets.

> "I rarely go to supermarkets." "Why?" "The food is not tasty. It's kind of flat and simply has very little or poor taste. We buy soap there, nothing else. [...] The goods are often older, you can taste that and often you see it on the vegetables. There's nobody with knowledge of the goods. [...] Then you arrive at the cash point with a passion fruit and the cashier asks you: What is this - Kiwis?" (Leo)

> "I enter the supermarket and the first thing I see is all the instant food. I think it's a bad development that we don't cook anymore; we let Albert Heijn cook for us. But he doesn't need to do that. I can cook myself. But that way less and less people prepare their own food and the time we spend on food diminishes further." (Arthur)

Another crucial aspect of food competence was that it enabled participants to be creative with food and to experiment. Creativity had tremendous influence on people's daily practices and fuelled for example the interest for seasonal products, uncommon cuts of meat or uncommon foods in general and also vegetarian cooking. Creativity and experimenting were perceived as the natural counterpart to instant foods. One participant described for example his fascination with uncommon cuts of meat that the regular meat industry usually discards. In general, creativity was often associated with a curiosity about new tastes and openness to try out new foods.

> "I try to use what's called 'low quality' meat, because that stimulates my imagination." (George)

> "I've always been quite adventurous and interested in taste [...] I tried jellyfish, rats, bats, dog. I'm curious – I want to try it. [...] I think insects are extremely exciting, I would definitely try them if I get the opportunity." (Roland)

> "I don't eat beef every day, but I also take liver or organ meat, once in a while. So I do eat meat, but then at least I eat the whole animal and not only the best piece. [...] I also buy octopus and clean it, or a squid, which is quite dirty work, but then at least I eat some of the by-catch." (Boris)

Creativity also fuelled the use of leftovers. Participants liked the challenge of integrating leftovers into subsequent meals. The meals in table 1 are a good demonstration of this. Some had even cultivated the practice of cooking extensively and saving parts out of the cooking process to be used in other meals. Participants also used their creativity to think up a meal based on the ingredients that their fridge has to offer, instead of buying new things. They emphasized that their creativity and the wish to experiment were fuelled by having to act within certain constraints and being limited in their options.

> "I'm very skilled in using leftovers, any way possible. Here I have some pasta, got to think of something with that, here's baked bacon with its gravy, can't let that go to waste, and I save my home-made bouillon." (Roland)

> "The best is when I have leftovers. [...] Then I add on to that, because creativity comes in when you're limited in possibilities." (Arthur)

Others described how they had rediscovered local and seasonal products and felt their creativity challenged, because they often required new recipes and new preparation skills. Also the preparation of a good vegetarian meal was viewed as a creative challenge because according to most participants it was more difficult than preparing a tasty meal with meat.

> "I enjoy cooking vegetarian, because it's much more challenging. To prepare it in a way that it's fully satisfying, that it's just right in terms of intensity of taste and a well filled stomach." (Boris)

> "If you decide not to eat meat, you can really use your creativity." (George)

3.3.3 Social relatedness

The third theme derived from the interviews was coined social relatedness. Participants considered their food choices within a larger context of social relations with other people. This encompassed the social context of a meal, their relations with food retailers within the local community as well as farmers all over the world. Participants liked to share food with family and friends and to them the sharing of food symbolized their care and love for others. Participants would make the time to prepare food and to eat together often within the family context. Also, giving special attention to tableware and how the food was being served, were important means to fortify social relations.

> "We find it really important to eat together. We make an effort for that." (Arthur)

> "With guests we put out fancy tableware. We do everything with extra care. Decorum is essential because it symbolizes the pleasure of sharing and enjoying food together." (Kevin)

The importance attributed to the social dimension of food was particularly prominent with regard to food purchases. Participants were very engaged with the question, who they wanted to buy their food from. From their descriptions it seemed that part of the identity of the retailer was in fact transferred to the food. They would refer to foods from the supermarket, for example, as anonymous, while food coming from retailers or producers that they knew had an identity and a particular character. Obviously, participants would not succeed in buying all their foods from producers they could know personally. In the everyday context, they were particularly keen on buying food from the various ethnic stores in the Netherlands, because these shops maintain a more personal approach to their customers and display cultural identity and diversity. For these reasons, also shopping at farmers' markets was popular. More generally, participants tried to support their local retailers and they felt that the availability of smaller specialty stores enhanced the quality of their immediate living environment and community. There was a strong sense of wanting to reward the 'right' kind of people.

> "The Turks are willing to work really hard with the whole family, going to the vegetable market very early. They have incredibly good business, and they're extremely nice people." (Piet)

> "Supermarkets offer extremely limited choice [...] on top of that, 'support your local retailer'! To me it's really important to sponsor the middle-class. I'd rather pay my middle-class convenience store holder around the corner than donate the money to Ahold.[3] [...] If I don't

[3] Ahold "Albert Heijn Holdings" is the name of the international corporation behind Albert Heijn.

> do it and nobody does it, then the small shopkeeper is gone and we all have to go to Ahold. That's my nightmare, I don't want that." (Marcus)

It occurred to us that participants, more or less actively, were building their own food networks consisting of food-interested friends, retailer sand / or producers. With these people they could share interests, gather and exchange all kinds of food knowledge. At the same time, a more personal bond with the shopkeeper, based on shared interests and values, was the fundamental basis of trust inspiring people's confidence in the overall quality of the product. If retailers were concerned about animal welfare or selling seasonal products, participants could rely on their judgment and didn't need to make all the considerations themselves.

> "I don't know exactly where he gets his products from, but he looks for quality. He finds producers where he can follow the production process. He's also really interested to find out about that." (Kevin)

> "I can discuss with the producer what he's offering, where it comes from and how it has been made. And whether it's in season or whether he imported it, or whatever." (Mary)

Social relatedness was also mirrored in the attention to food culture and tradition. Food was valued according to its origin, where it was produced, by whom and why. Participants liked to define themselves as belonging to a particular food tradition, craft and culture. Food consumption conveyed to them a sense of place and belonging and they strove to consume what was produced near them. In general, it could be argued that the valuation of the social dimensions of food production and consumption sensitized participants to a broader context of meaning associated with food.

3.4 The gourmet food philosophy and its relevance to sustainability

In the previous section we have aimed to elaborate on the practices of gourmets to find out more about their underlying food philosophies. In the Dutch context, three themes were identified as particularly prominent, namely the importance of the pleasure of taste, food competence and social relatedness. First we will turn to a discussion of the interview themes against the background of theory introduced above, then we will move on to discuss sustainability specific insights.

First, we discussed the importance of the pleasure of taste. From the participants' descriptions it became clear that the pleasure of taste was based on a long-term reflective involvement with food rather than a momentary pleasurable

sensation. Naturally, participants wanted to indulge in and enjoy tasty food, but in fact, their descriptions of what brought about this pleasure have a broader scope. This "new hedonism", as the founding fathers of Slow Food called it, is not so much a hedonic but rather a eudaimonic experience. This concept refers to happiness as a result of "living well", which implies engaging with and acting on deeply held values (Ryan & Deci, 2001). This contributes to a sense of personal fulfillment and positive involvement with food that has also been shown to mediate more sustainable food choices (Hoogland, de Boer, & Boersema, 2007).

The pleasure of taste was also a means to establish authenticity (Johnston & Shyon, 2007). This became especially clear when participants discussed meat consumption. Johnston & Shyon mention geographic specificity, artisanship, personal connection, and historicism as qualities of authenticity and all these elements were mentioned by participants. There was a preference for local breeds, and participants reported their preference for Turkish or Moroccan butchers because of the personal connection with the retailer and his artisan handling of the meat. The historical element was visible in the fact that participants wanted to revert to old traditions of animal slaughter, where every part of the animal was directly utilized for human consumption. Therefore, authenticity also particularly concerned the confrontation with the animal origins of meat, which rejects the dominant trend of concealing it (Vialles, 1994). Participants felt that this expresses their respect for the animal as food, which Campbell (2005) describes as a wish to ethicize consumption. These examples illustrate how the gourmets' food philosophy gives rise to food practices that may have the potential to undermine dominant conventions.

According to Campbell (2005), craft consumption and the associated food competences that participants described can be understood as an effort to make food consumption meaningful again. By means of their involvement with food through craft, participants try to escape the standardization and rationalization in the food sector. In terms of their practices, this can be illustrated by their preference of raw materials, their avoidance of processed, prepackaged products and their use of fresh cuts of meat from butchers. Therefore, food competences motivated people also to visit other shops and to develop their own creativity in cooking, preparing for example exotic and vegetarian foods. Campbell (2005) argues that craft consumption is and will be influential in the future and therefore it is interesting to examine its links with facilitating a culture of more sustainable food choices. In what follows, we scrutinize three potential pathways of how our insights may be utilized to promote a more sustainable diet less focused on meat: a shift towards high quality meats (including organic and local), the substitution of meat, and the promotion of a new culture of eating.

The first pathway concerns a shift towards meat of high quality. Many participants in this study pointed out the importance of meat within Dutch food culture and the importance of meat for their pleasure of taste. Hereby they voice the attitude of a majority of Dutch consumers (de Boer, et al., 2009) and proba-

bly many others. This demonstrates the futility of trying to remove meat entirely from people's plates and the potential danger of less subtle discourses trying to ban meat consumption all together. However, the high valuation of taste, and the idea among gourmets of meat as a delicacy may be helpful to promote a shift of emphasis from quantity to quality. The data illustrate that a desire for high quality meat motivates participants to buy from butchers, choose smaller portions and remain abstinent if a quality product is not available. The participants illustrate how through the intermediary goal of optimal quality they indirectly accept moderation.

In earlier work, it has been shown that consumers with an organic food philosophy typically associate quality meat with high standards of animal welfare and environmental protection (Schösler, et al., 2012b) and that they choose organic meat specifically for this reason. In contrast, as the current study illustrates, gourmets would sacrifice animal welfare for being able to buy raw, unpacked meat from a butcher. They seem more sensitive to traditional production of meat on a local, more personal scale and more artisan forms of retail. These qualities were preferred because social relations exist between producers and consumers, increasing a feeling of trust and the idea that things happened on a human scale. This is also expected to have positive spin-offs for sustainability, because consumers have a better chance to learn about the sustainability aspects of their choices (Stagl, 2002). More generally, efforts to promote a more sustainable diet may benefit if the discourse on food quality is broadened from awareness for environmental issues to more awareness of how through food consumption people maintain social relations with farmers, producers and retailers, globally and locally, influencing their lives in positive or negative ways.

Another pathway to promote a more sustainable diet, concerns the (partial) substitution of meat (Reijnders & Soret, 2003; Stehfest, et al., 2009). The interviews demonstrated, however, that gourmets are not receptive to the idea of meat substitution. Most likely, the entire discourse of meat substitution does not resonate with them because it implies a somewhat industrial "search-and-replace" approach that fits within the rational paradigm. Their focus on food competence conflicted with the use of processed products, even more so when they considered "mockups" of meat. Meat substitutes that are marketed as such are not attractive to people with a gourmet food philosophy. There may however be room to promote exotic foods from other cultures as substitutes for meat (Schösler, de Boer, & Boersema, 2012a; Vogel, 2010). An example could be falafel or lentil-based Indian dishes. An extreme example comes from the Netherlands, where there has been substantial research on the use of insects as a sustainable alternative to meat. In many non-European countries insects are consumed on a regular basis (de Foliart, 1999; Ramos-Elorduy, 2009) and they are not entirely foreign to Western food culture (Morris, 2008). Based on our interview data it seems feasible that gourmets could accept them as an experience of exotic foods from other cultures, which are seen as delicacies in for example African and Mexican

food culture (ibid).

The third pathway concerns the promotion of a new culture of eating by the gourmet food philosophy. Participants' food philosophies represent an effort to relate to food in a way that is meaningful to them and is in line with their personal values. This wish conveys an understanding of food being intrinsically valuable and deserving people's respect. A more respectful attitude towards food could be seen in the participants' use of leftovers and the wish to avoid food waste. At the same time, there was a willingness to try new and unusual foods. Such an open mind may be a necessary precondition for changing one's consumption habits. Petrini (2004) argues that Slow Food sets out to teach people that the taste for certain foods is a product of one's culture and the civilizing process (Elias, 1978). This kind of reasoning may potentially open people's minds towards other ways of consuming. However, in order to deviate from highly structured existent patterns of food consumption people also require a certain amount of autonomy. As we saw in our data, this autonomy also depends on the food competences a person possesses, enabling her to distance herself from current eating conventions that are more conducive to convenience and mindlessness (Candel, 2001) and seldom incorporate the dimension of sustainability. Thus, a new culture of eating also depends on the development of food competences among people.

In this sense, vegetarian cooking can be considered part of a new culture of eating. Research among Dutch consumers has indicated that for most people the substitution of meat involves the use of fish, eggs and cheese (Schösler, et al., 2012a), but from a sustainability perspective other animal protein foods are equally problematic (Risku-Norja, Kurppa, & Helenius, 2009). Ideally, therefore vegetarian cooking should mainly feature plant proteins such as, for example, legumes, nuts or grains. The preparation of vegetarian meals that feature small amounts of animal proteins, is challenging for many people and involves openness to different meal formats, meals from other food cultures and protein literacy (Schösler, et al., 2012a). The current study illustrates that participants associated vegetarian cooking with a creative challenge and experimentation, which made vegetarian dishes an attractive alternative, where vegetables had a new standing. An example of this is also the successful trend towards "forgotten vegetables" that have recaptured farmer's markets in the Netherlands and where vegetables are also valued for enhancing local artisan production systems. This trend helps to support the idea that not only meat can be the centerpiece of a meal, according to current conventions, but also a skillfully prepared vegetable (see also Gomez & Bouty, 2011).

It seems that this new culture of eating, somewhat surprisingly, implies that people are willing to accept various limitations on their food choices, such as the seasonal (un)availability of food, cooking without meat and the efficient use of leftovers. In fact, participants framed these limitations as a welcome challenge to their creativity and skill, instead of seeing their freedom of choice impaired in any way. This is a new take on moderation that can help to propagate ideas of simple

eating and consuming less. As we also see important links with tackling the issue of food waste in households, further research should clarify how this ethics of simplicity (Johnston & Shyon, 2007; Miele & Murdoch, 2002)could become appealing to more consumers. Reasoning from the data presented in this chapter, the main challenge would be to avoid people experiencing these limitations as superimposed on them but instead to advance seeing them as natural challenges that they accept voluntarily and autonomously.

3.5 Conclusion

In this article we discussed the relationship between the gourmet food philosophy and more sustainable food consumption patterns, because it may enable transitional changes towards a more sustainable culture of eating. Our research has shown that gourmet food philosophy has the potential of triggering people to adopt more sustainable food choices, specifically with regard to the consumption of meat. Different pathways were discussed regarding the shift towards better quality meat, the substitution of meat and the adoption of a new culture of eating that may facilitate a vegetable culture, the use of vegetarian foods from other cultures and general open-mindedness towards other eating styles. Overall, gourmet food philosophy may facilitate a positive discourse of more sustainable food choices, based on experimentation, pleasure and creativity. This approach can balance associations with austerity and moral purity that may hamper promotion of behavior change. The themes discussed here, the pleasure of taste, food competence and social relatedness are all powerful positive motivations that will be appealing to a large part of the Dutch population and are likely also to be valid in other countries.

While Slow Food can be seen as a powerful social actor that promotes gourmet food philosophy, the organization runs the risk of being seen as promoting fancy dinners and food festivals to an elite audience. Rightly, Germov et al. (2011) assert that this aspect may cause people to overlook the profound message of the Slow Food philosophy and the far-reaching implications of incorporating it into their daily practices. If Slow Food wants to stay true to its founding principles, it should be on its guard against cultural exclusiveness and instead focus on developing the food competences that will be required to develop a new culture of eating based on the pleasure of enjoying good food. While the rational paradigm still has a stronghold on mass consumption patterns, there is reason to believe that an understanding of food and cooking as a craft and part of cultural heritage can motivate more reflective practices which incorporate the dimension of sustainability.

Furthermore, future challenges are to translate the findings presented here to specific recommendations for policy makers. Efforts to change food practices in a more sustainable direction should be careful to address the pleasure of taste, food

competences and the social relations inherent in the food system. The gourmet food philosophy generates a new interpretative frame that can be used to attach different meanings to more sustainable food consumption. Departing from this point, policy makers may be better equipped to facilitate behavior change in the future.

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Chapter 4

Intuition versus calculation

Profiling types of motivation for more sustainable food choices

4.1 Introduction

Food production, especially meat, is one of the main sources of human pressure on the environment (Popp, Lotze-Campen, & Bodirsky, 2011; Westhoek et al., 2011). In fact, there will be much less pressure on crucial resources (i.e. water, biodiversity, energy), food security and human health, if people in Western countries choose to eat smaller quantities of meat and more environmentally friendly proteins, such as plant-based options (de Boer & Aiking, 2011). Although the need for such a change has frequently been advocated, there is no shared vision of a sustainable and desirable society to support it (Costanza, 2000; Jackson, 2005). The development of a shared vision is especially difficult for two particular reasons. Firstly, the definition of sustainability is not unequivocal, which is why we focus here on aspects of environmental and human health (Lang & Heasman, 2004). Secondly, it is typical for modern society that competing cultural values can exist simultaneously (Giddens, 1991; Taylor, 1989). Values compete in their influence over many food-related areas, as evidenced by discussions about the merits of organic agriculture (Goodman & DuPuis, 2002; Mann, 2003), the contribution of vegetarian diets to health (Sabaté, 2003) or the continuing increase in the prevalence of obesity (Flatt, 2011). Hence, the challenge for policy-makers in government and industry is to understand the background of the main values and to "manage" value pluralism in a manner that leads to a more sustainable food system in the future. This approach will also require a much better understanding of the ways in which consumers apply their values when they make food choices, because that can make a critical difference (de Boer, Hoogland, & Boersema, 2007; Brunsø, Scholderer, & Grunert, 2004; Grunert & Juhl, 1995; McEachern & Schröder, 2004; Tanner & Wolfing Kast, 2003; Tarkiainen & Sundqvist, 2009). To gain more insight into the background of the main values, it is important to put them in a long-term societal perspective (Giddens, 1991; Taylor, 1989). To gain

more insight into their current impact on consumers, it is necessary to examine different types of motivation that shape food choices (Vansteenkiste, Soenens, & Vandereycken, 2005). The present chapter aims to integrate both levels of analysis and takes a closer look at linkages between value pluralism, types of motivation, and sustainability relevant food choices, based on survey data in the Netherlands.

This chapter will first, from a societal perspective, briefly describe the main cultural tensions that may account for competing values in food-related areas and then, taking a psychological perspective, focus on the motives behind the practices of individuals. One of the scholars who has captured the cultural tensions of modern society in an authoritative way is the philosopher Charles Taylor (1989). He has demonstrated how the tensions between values are connected with the development of Western culture since the eighteenth century. The way in which modern people judge their lives and their relationship to the natural world has, according to Taylor (1989, p. 319), been formed by two big constellations of ideas. The two constellations involve, on the one hand, an emphasis on reasoning, calculation and utilitarian thought (i.e. the Enlightenment view), which fits with an understanding of nature as something that has no meaning beyond its function for humankind and whose value is only dependent on utility. On the other hand, there is an emphasis on intuition and creative imagination (i.e. the Romantic view), in which humankind is seen as an integral part of a larger order of living beings that sustains human life and fosters a kind of solidarity in the process of life. Psychologically, this contrast does not describe two static categories of people, but a polarity between utilitarian thought and intuitive feeling, which all Western people experience in different ways.

The relevance of Taylor's (1989) work is that he provides a background picture of significant tensions in modern culture, which contributes to our understanding of sustainability issues. According to the political scientist Dryzek (2005), there is no reason to regard one of the constellations as superior, at least as far as environmental policy-making is concerned; both the Enlightenment and the Romantic movements have a dark side and a brighter side. Currently, the tension becomes particularly manifest in the form of controversies between those who emphasize that environmental pressures will be substantially limited by technical means and others who stress that people should be open to nature and adapt to it (Taylor, 1989, p. 384). Similar types of antagonism can be observed between proponents of technologically advanced systems of high volume foods and adherents of specialty products, including organic agriculture (Gilg & Battershill, 1998; Mann, 2003).

Hence, the issues raised are far from purely philosophical. The utilitarian approach to nature is closely associated with the activities that are carried out to feed the growing world population. Particularly, the industrial production of meat is a case in point (Steinfeld et al., 2006). In Western countries the industry tends to produce highly standardized meat that is commonly sold in supermar-

kets and de-animalized to avoid reminding customers about the link between the meat dish and the killing of an animal (Vialles, 1994). In general, the utilitarian approach has successfully combined functionality with some eating pleasure, as many people have gained access to protein-rich food. However, its scale may have reduced meat's special character; the industrial way of meat production appears to have difficulties in communicating the taste for high quality food to consumers (Grunert, 2006) and it raises worries about its impacts on culinary traditions, care for food and health (Fischler, 1999). The utilitarian approach has also shaped many practices at individual level. For instance, it accentuates the repetitive and routine character of many food-related tasks, such as grocery shopping (Thomas & Garland, 2004). And it may lead to consumers being almost mindless in the kitchen, captured by a convenience orientation towards meal preparation (Candel, 2001). In contrast, non-utilitarian approaches to nature foster a kind of solidarity, in which food and nature have to be used carefully to better protect environmental and human health (Lang & Heasman, 2004). These approaches are associated with the development of markets that provide a variety of organic, natural, or locally sourced products, which enable growing numbers of consumers to internalize ideas about "eating green" in their personal behavior, whether it is with a more spiritual or with a more secular background (Dryzek, 2005; Jamison, 2003). Regarding organic foods, the markets in Western countries are growing dynamically since not just specialty shops but also mainstream retailers are making these products available to their consumers (Baker, Thompson, & Engelken, 2004; Sahota, 2009). Thus, at least part of the cultural tensions between utilitarian, calculating thought and intuitive feeling can be examined in terms of food-related practices, values and beliefs at the level of individuals.

To fully understand the relationship between cultural tensions and the behavior of individuals, it is necessary to examine how consumers apply their values when they make food choices. Some interesting, theoretical insights into this topic have come from Self-Determination Theory (SDT, e.g. Deci & Ryan, 2000). SDT distinguishes two main types of motivation, with the first type being intrinsic motivation. A person who is intrinsically motivated, for example, to care about food is self-determined and undertakes an activity for its own sake, such as the inherent enjoyment it provides. The second type involves persons who are extrinsically motivated. These persons are not self-determined but engage in an activity to obtain an outcome that is separate from the activity itself, such as children who are being rewarded for eating non-preferred foods. The difference between intrinsic and extrinsic types of motivation is relevant for the integration of behavioral practices within one's core values. A person feels self-determined (i.e. authentic and competent) about behavior that is intrinsically motivating because it reflects practices that have been fully internalized and integrated within one's core values (Kasser, 2002). To integrate a practice, the person must grasp its meaning and synthesize that meaning with respect to other goals and values (Ryan & Deci, 2000). Therefore, a person who is intrinsically motivated to care

about food may adopt other food practices, which are more appropriate to the notion of care, than those who are extrinsically motivated. The latter may show less interest in the meaning that food might have for them, other than the obvious one of providing them with energy and nutrition (at least in the Western context).

Intrinsic motivation to care about food includes the more often studied concept of involvement in food-related activities, as long as that involvement can be understood in terms of a person's level of interest in the activity (unlike "ego involvement", see Deci & Ryan, 2000). The concept of involvement is well known from the literature on consumer behavior (Bell & Marshall, 2003; de Boer et al., 2007; Tarkiainen & Sundqvist, 2009). Typically, persons with a high level of involvement in an issue, such as a product category, tend to make informed choices based on relatively active and mindful information processing, provided that their self-interest is not harmed by the outcomes (Darke & Chaiken, 2005). Such a high involvement in food can be related to a varied and adventurous taste (see also Ullrich, Touger-Decker, O'Sullivan-Maillet, & Tepper, 2004; Wycherley, McCarthy, & Cowan, 2008). High involvement in food can also be expressed as reflective attention to the wider implications of food choices in terms of health, naturalness of the food, weight control and ethical considerations (de Boer et al., 2007; Pollard, Steptoe, & Wardle, 1998). Although in the case of food even consumers with low involvement have to make choices every day, they can do this by relying on relatively mindless ways of information search and well-established attitudes (e.g. Verbeke & Vackier, 2004). Within the current system, however, they have in fact little control over what they eat exactly (Lang & Heasman, 2004), because this information is not readily available and is therefore rarely sought out if involvement is low (de Boer et al., 2007). Consumers with low involvement may be proud of easy successes with cooking but become helpless when they face possible failure. This may be one of the drivers for the consumption of convenience products (Brunner, van der Horst, & Siegrist, 2010; Candel, 2001).

The theoretical framework and concepts of SDT can integrate and contextualize these results. Importantly, SDT specifies that a mindless way of doing something is far less satisfying than a way of living that is focused on what is intrinsically worthwhile to human beings, namely competence (e.g. cooking and tasting skills), autonomy (e.g. perceived choice) and a sense of meaning and connection (to people, nature or the universe as a whole) (Ryan, Huta, & Deci, 2008). Earlier work (de Boer et al., 2007) suggests that in the case of food people can experience a sense of connection with nature ("eating green") or with a taste culture ("being a gourmet"). According to Deci and Ryan (2000), the notion of connectedness appears to provide "a distal support" for intrinsic motivation.

Taking this work one step further our aim in the present chapter is to gain an understanding of some more specific beliefs consumers hold about themselves and food, along with the implications thereof for food sustainability. Recent approaches to SDT depict self-determination as a kind of continuum and make

a number of additional distinctions (e.g. Pelletier, Dion, Slovinec-D'Angelo, & Reid, 2004; Vansteenkiste et al., 2005). Table 4.1(page 78) shows five types. The first distinguishes intrinsic motivation from identified motivation. Intrinsic motivation refers to the inherently enjoyable aspects of an activity, such as cooking and eating. This can be distinguished from identified motivation, which refers to the regulation of an activity that has been internalized or "taken in" within one's value structure, so that people experience their behavior as an expression of their personal values. From a theoretical perspective, the latter may be particularly relevant for understanding those consumers who care about the long-term implications of their food choices for nature, because their behavior ("eating green") is the result of identified motivation and not the automatic result of the pleasure of cooking and eating itself. Self-determined identification may arise from a concern about one's relationship with and responsibility towards nature, which is an important theme in modern culture (Pilgrim & Pretty, 2010; Taylor, 1989). In turn, fully internalized motivation can be distinguished from partially internalized ("introjected") motivation, which means that people have not fully accepted the personal importance of an activity for their own self-structures. Partially internalized motivation is, according to Vansteenkiste et al. (2005), a crucial factor in the maintenance of eating disorders where people are not able to establish an internalized balanced eating pattern, but feel pushed by internal pressures such as feelings of guilt and shame. This type of motivation is also quite different from external motivation, where people engage in an activity to obtain an external reward, such as social acceptance or money. Externally motivated consumers may perceive food primarily as fuel for the human body, which fits with buying food in ways that save time and money. Efficiency is an important theme in modern culture (Becker, 1965; Taylor, 1989), but it has been noted that issues of time and food choices appear to be complex (Brunner et al., 2010; Jabs & Devine, 2006). Finally, there is the category of "amotivation", which applies if people feel discouraged with regard to their behavior and show a very low level of motivation. This type was not included in the present study, because we did not expect to find such a low level of motivation in the general population.

Table 4.1: Five types of motivation, from least self-determined to most self-determined (adapted from Vansteenkiste et al., 2005).

Behaviour	Least self-determined				Most self-determined
Type of motivation	Amotivation	External motivation	Introjected motivation	Identified motivation	Intrinsic motivation
Motivational force	Helplessness	Expectations, rewards, punishments	Guilt, shame, internal compulsion	Personal values, commitment	Enjoyment, pleasure, interest
Locus of causality	Impersonal	External	External	Internal	Internal
Example of positive items in current study	Not included	"*I don't need to know exactly how my food is produced.*"	"*Food is often an irresistible temptation. Sometimes I feel guilty about things I've eaten.*"	"*It's important to me that my food choices are not harmful to the natural environment.*"	"*I feel happy when I have time and attention to cook.*"

As mentioned before, our aim is to gain an understanding of how the four types of motivation shape food choices and what that means for food sustainability. At this point, it should be noted that SDT has been used in several studies of the relationship between type of motivation and adoption of more sustainable behavior (e.g. de Groot & Steg, 2010; Villacorta, Koestner, & Lekes, 2003). However, these studies use SDT to systematically examine various reasons for engaging in pro-environmental behaviors, which are framed as "doing things for the environment". For example, intrinsic motivation is described in terms of "I enjoy contributing to the environment" (de Groot & Steg, 2010). Although this approach can be meaningful in studying behavior with an explicit connection to the environment, such as recycling, it is obvious that cooking and eating are not meant "for the environment". Instead, it is cooking and eating that may (or may not) be inherently pleasurable and that may (or may not) be integrated into one's core values. This viewpoint will provide a new approach to studying the impacts of types of motivation on food choices and food sustainability, as we shall see in greater detail later.

Another important remark is that food sustainability is a complex public policy concept, which cannot adequately be captured by a single criterion (Pretty, 2008; Risku-Norja, Kurppa, & Helenius, 2009; Steinfeld et al., 2006). In order to investigate what the four types of motivation mean for food sustainability, it is necessary to consider a number of measures that are relevant to this concept. As mentioned above, we have decided to focus this research on meat consumption; meat is especially relevant with regard to environmental and human health and it is also a culturally significant symbol (deFrance, 2009; Schösler, de Boer, & Boersema, 2012). The chosen measures include the prevalence of food choices favoring relatively small quantities of meat (de Boer et al., 2007). The second measure is the household's purchase of meat that comes from carefully raised animals (Broom, 2010), such as organic and free-range meat, instead of industrially produced meat. The third measure is the purchase of products that are marketed as meat substitutes, such as burgers, stir-fry cubes or "mince-meat", which usually derive from soybeans. Another important category of environmentally effective food choices is a preference for plant-based instead of animal-based protein products. Since previous work on the way in which meat-eaters also appreciate plant-based diets is embodied in just a handful of studies (de Boer & Aiking, 2011; Lea, Crawford, & Worsley, 2006; Schösler et al., 2012; Wansink, 2002), such a preference needs much more attention.

Bringing these insights together, the main idea in this chapter is that consumers have different types of motivation and that measures thereof will enrich the predictions of sustainability-relevant food choices. The different types of motivation are expected to include the pleasure of cooking and eating, internalized importance of the food-nature relationship, dieting-related motivational conflicts, and externally motivated patterns of food choices (i.e. saving time and money). The cultural tensions mentioned by Taylor (1989) between intuitive feeling and

utilitarian thought may in particular be reflected by differences in practices between consumers who have internalized the food-nature relationship and those who have externally motivated patterns of food choices. More specifically, consumers who have internalized the food-nature relationship and those who are externally motivated will show contrasting levels of meat consumption (i.e. low or high quantities of meat, hypothesis 1), different frequencies of buying carefully produced meat (i.e. regularly versus never, hypothesis 2); different frequencies of buying meat substitutes (i.e. regularly versus never, hypothesis 3), and contrasting preferences in favor of or against plant-based protein products (hypothesis 4). Two other hypotheses may help in profiling the types of motivation associated with the sustainability relevant food choices. The degree to which consumers experience cooking and eating as a source of pleasure will also predict choices in favor of carefully produced meat (hypothesis 5) and plant-based protein products (hypothesis 6), as this experience may increase the variety of food choices (de Boer et al., 2007). No hypotheses were formulated regarding the other types of motivation.

To examine the generalizability of the results we opted to study a sample from the general population. Therefore, we included a number of variables describing the socioeconomic and practical conditions of consumers. Previous work (de Boer et al., 2007) shows that gender, age, education, income, and community size are relevant for predicting the degree to which consumers eat less meat or buy carefully produced meat. To check our interpretation of the types of motivation we included some variables that describe cooking practices, such as whether someone cooks and how much time is spent on cooking. For several reasons, it is also important to consider the concerns of consumers who are willing but not able to establish an internalized balanced eating pattern. These consumers are expected to be ambivalent about food and experience more problems associated with obesity (Urland & Ito, 2005; Vansteenkiste et al., 2005), which is partly a matter of dietary protein intake (Halkjær et al., 2009). The problems of obesity are now being addressed in a special field (Flatt, 2011), but their relevance for food sustainability should not be totally neglected. Therefore, we included the Body Mass Index (BMI) in the study.

4.2 Method

Procedure

The data set is based on a nationwide sample of 1083 consumers in the Netherlands. The very high degree of Internet penetration in this country (about 93% of the population) enabled a survey among consumers with Internet access. The stratified sample was drawn from a large panel of persons who were willing to participate in web-based research for a small fee. In November 2010 the sample

received a temporary link to a survey about food (response rate 68% within two weeks). Due to the stratified sampling procedure, the data showed a representative distribution of the main demographic characteristics (see Table 4.2, page 81), although young men were slightly less likely than young women to participate. The questionnaire comprised modules with questions about types of food-related motivation, questions about meat (where "meat" does not include fish), portion sizes, choices between protein products, and some household characteristics. A detailed analysis of meat-eaters' appreciation of meat substitution options has been reported in a separate paper (Schösler et al., 2012), see chapter 5. In the present chapter, we focus on the types of motivation and the main sustainability-related food choices.

Table 4.2: Main demographic characteristics of the participants.

Variable	Levels	No	%
Total		1083	100
Gender	Male	542	50
	Female	541	50
Age	18-34	221	20
	35-54	434	40
	55-74	365	34
	75 and over	63	6

Table 4.2 continues on next page.

Table 4.2 continued from previous page.

Variable	Levels	No	%
Education level	Primary education	68	6
	Preparatory vocational education	193	18
	Lower general secondary education	123	11
	Intermediate vocational education	323	30
	Higher general secondary education/ preparatory university education	98	9
	Higher vocational education	175	16
	University education	95	9
	Unknown	7	1
Community size	Less than 10.000	20	2
	From 10.000 to 20.000	128	12
	From 20.000 to 50.000	395	36
	From 50.000 to 100.000	250	23
	From 100.000 to 400.000	220	20
	More than 400.000	70	7

Types of food-related motivation

The literature on SDT does not provide measures reflecting that it is cooking and eating that may (or may not) be inherently pleasurable and that may (or may not) be integrated into one's core values. Therefore, a set of written statements indicating differing types of food-related motivation were derived from qualitative

interviews with 30 consumers about their food practices. These consumers were selected as potential exponents of different food-choice orientations identified in previous research. They included some members of Slow Food, organic shoppers, convenience- and economy-oriented shoppers and conventional consumers. The way they described their food practices was scrutinized for statements that could capture the differences between the SDT types of motivation in terms of food-related practices, such as purchasing, preparation and consumption. The selected items asked consumers how far they felt connected to their food, animals, producers or retailers and if they felt responsible. Another topic was whether they took intrinsic pleasure in dealing with food and whether they were drawn to externally motivated utilitarian behavior patterns, such as buying foods that are on offer. Also, items on eating-related motivational conflicts were incorporated. The answers to the items on a Likert-type scale varied from 1 (completely agree) to 7 (completely disagree). After removing two weak items, a principal component analysis was conducted to check whether the 24 items loaded on distinct components. A scree-test indicated that a four component solution was appropriate (accounting for 43% of the variance). Table 4.4 (page 100) presents the items and their loadings on each of the four components after Promax rotation. We chose an oblique rotation because the components might be related to each other given that self-determination is a kind of continuum. The first three components (alpha = .69, .68 and .68) can be interpreted as evidence of an extrinsic orientation toward food (e.g. "having no interest in how food is produced"), intrinsic enjoyment of food (e.g. "happy to give time and attention to cooking") and valuing the food-nature connection (e.g. "food choices should not be harmful to the natural environment"). The fourth component was less strong (alpha = .61), but valuable from a theoretical point of view as it demonstrates ambivalence about food (i.e. reporting frequent dieting). The ambivalence items received less positive ratings than the others. The correlations between the components are reported in Table 4.3(page 88; intrinsic enjoyment of food and valuing the food-nature connection were positively correlated ($r = .27$, $p < .001$).

Meat frequency and portion size

A single-item measure asked for the number of meat eating days ("How many days per week do you eat your main meal with meat (including chicken)?"). The participants reported, on average, a number of 5.4 meat days per week (the median was 6). Eating meat every day was reported by 28% but 23% answered they did not eat meat more than 4 days a week. The number of vegetarians was low; 1.2% of the sample indicated being a full vegetarian or eating meat less than once a week. Other questions asked for the preferred portion size. The participants were shown three photos of a plate with a piece of meat that was 50, 100 or 150 gram. These weights were also given in the descriptions of the photos. Each photo was accompanied by the question whether the portion size was too

small, enough or too large (i.e. creating non-monotonic item response functions). After dichotomizing the responses to the 50 and the 150 gram items, the three items yielded a reliable score (Guttman's Lambda 5 = .63). The most preferred portion size was 100 gram. Number of meat days and preferred portion size were positively correlated (r= .20, p< .001). Although preferred portion size does not have to be equivalent with actual portion size, it was treated as such. A combined variable was created to rank consumers from high to low concerning their meat consumption by multiplying the number of meat days and preferred portion size.

Purchase of organic or free range meat

A single-item measure was used to obtain information about the degree to which one's household buys organic or free range meat. The answer categories were "never" (49%), "sometimes" (42%), "often" (7%) and "always" (1%).

Purchase of meat substitutes

A single-item measure was used to obtain information about the degree to which one's household buys meat substitutes, such as veggie burgers. The answer categories were "never" (56%), "tried once" (14%), "rarely" (14%), "sometimes" (9%) and "regularly" (8%).

Choices of plant-based snacks

A four-item scale was used to assess general preferences for either foods of animal origin versus foods of plant origin, apart from the main meal. This scale was based on three questions addressing the preference for various meat or plant-based fillings of sandwiches. Participants had to choose between one of three different meat sandwiches and a plant-based sandwich filled with 1. falafel, 2. sliced avocado and tomato or 3. a pumpkin-hazelnut spread. All the sandwiches were shown in photos. The scale also took into account a question on snacks, which were either animal-based (including hybrid products consisting partly of meat and partly of an unspecified meat substitute) or plant-based, consisting of 1. algae and 2. lentils). The results showed a fairly consistent pattern of preferences in favor of either meat-based or plant-based food options (Cronbach's alpha .61). The emphasis was on the meat-based options, which were chosen four times by 39%; 5% chose the plant-based option four times. Choosing the plant based options correlated negatively with the quantity of meat consumption (r= –.39, p< .001).

Body Mass Index

The participants were asked to report their body weight (in kilograms) and body height (in centimeters) in order to compute their BMI, expressed as weight in kilograms divided by height in meters squared. The mean index was 26.2 among males (mean weight 85, length 180) and 26.1 among females (mean weight 74, length 169). As a BMI above 25 applies as overweight, about 50% of the participants were too heavy. Although the accuracy of self-reported weight and length may be questioned, the analysis here emphasizes the comparison between high-ranking and low-ranking participants. One way to check the validity of the results is to examine the relationship between BMI, level of education and age. In the Netherlands, BMI will decrease with a higher level of education and increase with age in a curvilinear way (quadratic term significant), such that the rate of increase is greater at a low age (Nooyens et al., 2009). The coefficients of the ordinal regression agreed well with this prediction (Nagelkerke R2= .087, p< .001).

Descriptive variables

To explore the generalizability of the results, we included a number of variables describing some personal characteristics and practical conditions in addition to the usual descriptive variables, such as gender, age, education and community size (see Table 4.2, page 81). Departing from the theory of value pluralism, a potentially relevant characteristic is the spiritual or religious orientation of the participant. One question was "Are you spiritually or religiously inclined?", with the answers "no", "to a certain extent", and "yes". A separate question asked about membership of a spiritual or religious group, with answer categories "no" and "yes", further divided into "Catholic", "Protestant", "Dutch Reformed", "Islamic", "Buddhism", and "other". Also documented were the number of persons in the household, and the presence of children. In answer to the question "Are you doing most of the cooking?" 31% of the males and 84% of the females said yes. The yes-sayers were asked how much time they spend on cooking (in 4 categories of 15 minutes). All were asked how much time they spend eating the evening meal on weekdays (in 4 categories of 15 minutes).

Data analysis

A preliminary analysis was carried out to examine the relationship between the four types of food-related motivation and a number of variables describing the socioeconomic and practical conditions of consumers, such as whether someone cooks and how much time is spent on cooking. This was done by ordinary regression analysis. Given the ordinal nature of the sustainability-relevant variables, ordinal regression (PLUM) was used to test the hypotheses. All analyses were

conducted with SPSS 15 for Windows.

4.3 Results

Preliminary analyses

Each of the four types of food-related motivation (i.e. intrinsic enjoyment of food, valuing the food-nature connection, ambivalence about food and extrinsic orientation toward food) was regressed on the variables gender, age (if relevant also age-squared), BMI, education, spiritual or religious inclination, adherence to the Protestant or Dutch Reformed faith, a dummy for living with others, a dummy for doing most of the cooking, and the variable time spent on eating a meal. In a second step of the analysis, potential interaction effects were examined for the number of persons in the household, the presence of children, the gender of the person who is doing most of the cooking and the time spent on cooking. The variables household income and community size did not make a difference and were left out of the analysis. Table 4.5 (page 105) presents the results of both steps.

Intrinsic enjoyment of food

As the items in Table 4.4 (page 100) show, this type of motivation is associated with deriving pleasure and satisfaction from dealing with food in general. This may include feeling a personal connection toward the retailer, preferring to use smaller shops and to give support to local retailers. Other important themes are preparing one's own food and taking time to eat to experience its taste. The regression coefficients in the first column of Table 4.5 (page 105) indicate that intrinsic enjoyment of food increased somewhat with age, spiritual or religious inclination, not being Protestant, doing most of the cooking, and spending more time on eating a meal (more than 30 minutes). The second step showed that the enjoyment was somewhat higher in households without children, if the person who did most of the cooking was a male, and if more time was spent on cooking (more than 30 minutes). BMI did not make a significant difference. The level of prediction via the regression analysis was modest at 14%.

Valuing the food-nature connection

This type of motivation is associated with a strong sense of connection with nature and all life forms. The items in Table 4.4 (page 100) reflect the intention to make food choices that are not harmful to the natural environment. Eating meat is linked to feelings of responsibility for the welfare of the animal that provided the meat. Eating well is seen as a precondition to staying healthy. As Table 4.5 (page

105) shows, valuing the food-nature connection was slightly higher among females and increased somewhat with age, education, spiritual or religious inclination, not being Protestant, not living with others, and spending somewhat more time on eating a meal. There was a weak negative contribution of BMI and no significant interaction effect. This type of motivation was unrelated to the questions on cooking. Again, the level of prediction via the regression analysis was modest at 10%.

Ambivalence about food

This type of motivation is associated with a feeling of guilt and discomfort about food choices. Food is perceived as an irresistible temptation. The items in Table 4.4 (page 100) are descriptions of people who feel that the way they eat is often not what they would ideally like it to be. They make concessions because they find other things more important. There is little enjoyment of cooking and the preparation of a meal is perceived as a burden. The greatest concern is the nutritional value, calories and fat percentage of meals. Ambivalence about food was slightly higher among females, decreased with age, increased with BMI, not cooking and not spending much time on eating a meal. There was a significant interaction with age-squared, suggesting that especially the young participants were relatively ambivalent. Doing most of the cooking but not spending much time on it also made a small difference. The level of prediction was modest at 9%.

Extrinsic orientation toward food

This orientation toward food describes people who trust in the quality of food in the supermarket and who would like to buy packaged food because they find that more hygienic. They prefer instant food and want to purchase everything in one shop. Quality labels are found unnecessary and they think that one shouldn't make too much fuss about food. They may enjoy the conviviality of eating with others; the food itself is then of secondary importance. As Table 4.5 (page 105) shows, the extrinsic orientation toward food decreased somewhat with age, level of education, and spiritual or religious inclination, but it increased somewhat with BMI and being Protestant. Again there was a significant interaction with age-squared, suggesting that especially the young participants were relatively high in extrinsic orientation toward food. A somewhat lower score was found among participants who lived with one other person, but a somewhat higher score among those doing most of the cooking but not spending much time on it. The level of prediction was modest at 11%.

Main analyses

The preliminary analyses yielded small, yet plausible, differences between the predictions of the four types of motivation. Table 4.3 (page 88) shows the correlations between the four types of motivation and the four sustainability-relevant food choices. The results of the ordinal regression analyses to test the hypotheses are presented in Table 4.6 (page 108). Each of the four sustainability-relevant food choices (i.e. quantity of meat consumption, purchase of organic meat, purchase of meat substitutes, and choices of plant-based snacks) was regressed on the variables gender, age, education and community size, which were found to have statistically significant regression coefficients in earlier research (de Boer et al., 2007). BMI was also included. In the present study, household income did not seem to make a difference and was left out of the analysis. In a second step of the analysis, the four types of motivation were included.

Table 4.3: Correlations between the main variables.

	1	2	3	4	5	6	7	8
1. Intrinsic enjoyment of food	1							
2. Valuing the food-nature connection	.27***	1						
3. Ambivalence about food	.02	.05	1					
4. Extrinsic orientation toward food	-.16***	-.17***	.10**	1				
5. Quantity of meat consumption	-.12***	-.22***	-.10**	.22***	1			
6. Purchase of organic meat	.17***	.23***	.05	-.30***	-.17***	1		

Table 4.3 continues on next page.

Table 4.3 continued from previous page.

	1	2	3	4	5	6	7	8
7. Purchase of meat replacers	.09**	.29***	.11***	-.19***	-.32***	.34***	1	
8. Choices of plant-based snacks	.20***	.27***	.01	-.36***	-.39***	.30***	.41***	1

*p < .05. **p < .01. ***p < .001.

Quantity of meat consumption

The first hypothesis stated that consumers who internalized the food-nature relationship and those who are externally motivated will show contrasting levels of meat consumption (i.e. low or high quantities of meat). The first two regressions in Table 4.6 (page 108) show that quantity of meat consumption was lower among females and decreased with age, education and community size, but increased with BMI. As hypothesized, consuming higher quantities of meat was negatively associated with valuing the food-nature connection (b = –.19) and positively with extrinsic orientation toward food (b = .34). Ambivalence about food was also negatively associated with quantity of meat consumption (b = –.30), but intrinsic enjoyment of food made no difference for the prediction results. The level of prediction was modest (Nagelkerke R2= .156, p< .001).

Purchase of organic meat

The second hypothesis stated that consumers who internalized the food-nature relationship and those who are externally motivated will show different frequencies of buying carefully produced meat (i.e. regularly versus never). Higher frequencies of buying carefully produced meat would also be predicted by intrinsic enjoyment of food (hypothesis 5). The third regression in Table 4.6 (page 108) shows that the frequency of organic meat purchases was positively associated with level of education and community size. Adding the types of motivation to the prediction (fourth regression in Table 4.6, page 108) showed that valuing the food-nature connection had a positive association (b = .34) and extrinsic orientation toward food a strong negative one (b = –.55). This agrees with the hypothesis. In addition, there were positive associations with intrinsic enjoyment of food (b = .20), which agrees with hypothesis 5, and with ambivalence about food (b = .16). The level of prediction was modest (Nagelkerke R2= .195, p< .001).

Purchase of meat substitutes

The third hypothesis stated that consumers who internalized the food-nature relationship and those who are externally motivated will show different frequencies of buying meat substitutes (i.e. regularly versus never). The fifth regression in Table 4.6 (page 108) shows that the frequency of buying meat substitutes was somewhat higher among females, increased with education and community size, but decreased with BMI. The second step of the analysis (sixth regression in Table 4.6, page 108) revealed that valuing the food-nature connection had a positive association (b = .49) and extrinsic orientation toward food a negative one (b = –.26). This is in line with the hypothesis. There was also a positive association with ambivalence about food (b = .26), but not with intrinsic enjoyment of food. The level of prediction was modest (Nagelkerke R2= .168, p< .001).

Choices of plant-based snacks

Hypothesis 4 stated that consumers who internalized the food-nature relationship and those who are externally motivated will show contrasting preferences in favor of or against plant-based protein products. In addition, choices in favor of plant-based protein products would also be predicted by the intrinsic enjoyment of food (hypothesis 6). The fifth regression in Table 4.6 (page 108) shows that choices of plant-based options were more frequent among females, and increased with age, education and community size, but decreased with BMI. As hypothesized, the choices were positively associated with valuing the food-nature connection (b = .29) and strongly negatively with an extrinsic orientation toward food (b = –.54). There was a positive association with intrinsic enjoyment of food (b = .28), which agrees with hypothesis 6, but not with ambivalence about food. The level of prediction was relatively good (Nagelkerke R2= .269, p< .001).

4.4 Discussion

The guiding idea of this chapter was that people's divergent values in food-related areas, which may have important implications for food sustainability, can only be understood by putting practices and beliefs at the level of individuals into the perspective of long term cultural processes. These processes reveal tensions between the utilitarian approach to nature, in which nature has no meaning beyond its function for humankind, and non-utilitarian approaches, in which mankind is seen as an integral part of a larger order of living beings (Taylor, 1989). Some of the cultural tensions can be examined at the level of individuals, as their behavior is shaped by matches between cultural factors in their immediate context and their type of motivation (Kasser, 2002). Generally, it was hypothesized that the cultural tensions will be reflected by differences between consumers who have internalized the food-nature relationship and those who have externally motivated

patterns of food choices. More specifically, these groups of consumers were expected to show contrasting levels of meat consumption, different frequencies of buying carefully produced meat, different frequencies of buying meat substitutes, and contrasting preferences in favor of or against plant-based protein products. These hypotheses were supported by the data.

Although all the hypothesized contrasts were supported, they were not equally strong. Purchasing carefully produced meat, such as organic or free-range meat, demonstrated a relatively strong contrast between valuing the food-nature connection and having an extrinsic orientation toward food. This agrees with the cultural distance between the organic or natural foods sector and the conventional sector (Gusfield, 1992), which fits very well into Taylor's (1989) background picture. The increasing popularity of organic products has made them interesting for marketers who want to analytically distinguish health-related food choice criteria from environment-related ones (Hughner, McDonagh, Prothero, Shultz, & Stanton, 2007; Mondelaers, Verbeke, & Van Huylenbroeck, 2009). This analytical approach may fail to appreciate the background picture, however, because regular buyers of organic products tend to avoid potential threats to both their health and their good conscience (de Boer et al., 2007; Dickson-Spillmann, Siegrist, & Keller, 2011; Magnusson, Arvola, Koivisto Hursti, Åberg, & Sjödén, 2003). In the words of Taylor (1989, p. 12), these consumers may understand themselves in terms of organic metaphors. As the items in Table 4.5 (page 105) demonstrate, valuing the food-nature connection stems from a kind of solidarity, which combines feelings of connectedness with responsibility for one's own health and the prevention of harm to living beings. Connectedness and responsibility are essential elements of a caring attitude. For some people, this may also include considering the things we eat as ensouled, but that was a weakly loading item and not representative for all (final item in Table 4.5, page 105). This agrees with the observation of Jamison (2003) that when eating green becomes an important part of one's identity, it may have more spiritual or more secular sides. In contrast, consumers who are externally motivated may have no reasons to pay a premium price for organic products (but see below).

Taylor's (1989) background picture is also relevant for differences in the quantity of meat and preferences in favor of plant-based snacks. However, this is not just a polarity within one product category. A high consumption of meat and a low regard for plant-based options have become the dominant cultural pattern (Grigg, 1995; Lea et al., 2006). This pattern is closely connected with factors such as the availability of products, their familiarity, and accustomed meal patterns, which make it easy for consumers to follow conventions (Wansink, 2002). Making active efforts to break away from existing conventions may require that consumers develop reflective attention to the wider implications of food choices. According to our findings, the capacity to do this is supported by a higher level of education and a more urban environment that offers people a culturally diverse landscape and seems to enable other kinds of thinking and other kinds of food choice (de

Boer et al., 2007). Level of education had a large impact on choosing plant-based snacks, which may indicate that many Dutch people are not familiar with foods such as falafel and avocado. Lea et al. (2006) also note that the majority of consumers are not very aware of the large variety of plant protein sources. Those participants who experienced cooking and eating as a source of pleasure did not differ in quantity of meat consumption or purchases of meat substitutes, but they showed more appreciation of the plant-based snacks. Ambivalence about food was associated with less meat consumption but not with preferences for plant-based snacks. Having an extrinsic orientation toward food was the only type of motivation that was positively related to the quantity of meat consumption and negatively to choosing plant-based snacks.

Overall, the externally motivated consumers were most inclined to follow the dominant pattern instead of choosing more carefully produced food and lower amounts of animal-based protein, including meat substitutes. As several items in Table 4.5 (page 105) demonstrate, this type of motivation was associated with a practical, utilitarian approach to shopping for food and getting bargain offers. It also included purchasing everything in one shop instead of buying food from smaller shops. This efficient way of buying was correlated with a higher trust in packaged foods and in the overall quality of food in the supermarket, a preference for instant products/meals and a lower tendency to reflect on food choices (see Table 4.5, page 105). These motivational characteristics may reinforce the repetitive and routine character of many food-related tasks (Candel, 2001; Thomas & Garland, 2004). Taken together, these conditions make it more likely that consumers will choose the easy way and follow the dominant pattern that is enforced by their environment. As the results demonstrate, this environment currently facilitates the choice for meat, while it discourages reflection and instead relieves consumers from a sense of responsibility.

It has to be noted, however, that a utilitarian approach is not the only type of external motivation and that external motivation is not necessarily inconsistent with more sustainable choices. External motivation may also involve expectations of other people close to the person about his or her choices (Pelletier et al., 2004) and some small scale experiments have shown that a higher social status for "going green" can work as an external motivator (Griskevicius, Tybur, & van den Bergh, 2010). Hence, externally motivated consumers can also have a reason to pay a premium price for organic products. However, that did not seem to be the case here.

At first sight, Taylor's (1989) background picture seems to be less relevant for the issue of overweight. However, a sense of inner struggles around food and personal discipline can only be understood as reflecting the tensions of contemporary culture. As Lemke (2007) suggests, the ambivalence today may be the result of a historical tendency in Western culture, where non-reflective physical interpretations of food conflict with more holistic views of the human body and nature. Out of the four types of motivation derived from self-determination the-

ory, ambivalence about food (and not intrinsic enjoyment of food) was the main one that was associated with BMI. This result is in line with what Vansteenkiste and colleagues (2005) postulated and highlights the complex nature of obesity or overweight conditions. In general, "not being obese" seems to be associated with a stronger interest in health, organic products and freshness (see also Perez-Cueto et al., 2010; Robinson & Smith, 2003). Age and education were also important in this context (Nooyens et al., 2009). Because the current environment does not stimulate reflective attention to food choices, it is crucial to examine how young people especially can be stimulated to adopt a self-determined motivational orientation toward healthy eating behaviors (Pelletier et al., 2004).

In sum, the presumed link between cultural processes and the behavior of individuals via their type of motivation is vital to integrate and contextualize survey results. Building on earlier work that distinguished consumers according to their involvement in food, it appeared meaningful to differentiate types of motivation postulated by self-determination theory (Deci & Ryan, 2000; Vansteenkiste et al., 2005). The types of motivation were successfully used to enrich predictions of sustainability-relevant choices. Although this set of measures is much less detailed than the marketing oriented Food-Related Lifestyle (FRL) concept (e.g. Brunsø et al., 2004; Grunert, 1995), it covers aspects of motivation that are often not included in means-end chains, such as ambivalence, spiritual/religious orientations and a feeling of connectedness with nature. In addition, it should be feasible to develop measures that cover other personal value commitments and other external expectations or rewards. For instance, internalized motivation may not only refer to care about the long-term implications of food choices for nature and health, but also to care about the development of a particular taste culture, such as Slow Food (Fischler, 1999; Petrini, 2003). External motivation may involve expectations of other people about one's food choices, such as social norms (Pelletier et al., 2004). By its very nature, measuring external motivation may require broader sets of items inasmuch as it refers to a diversity of expectations, rewards and punishments. Hence, it should be feasible to develop other promising measures of this type of motivation.

From a sustainability perspective, it is important to note that particular combinations of cultural and motivational factors may work in the direction of more carefully produced food and a lower consumption of animal-based protein. This involves various types of self-determined consumers whose food choices may better protect environmental and human health in the future. In view of the increasing pressure on environment and health, however, the challenge for policy-makers in government and industry will be to accelerate this process significantly. For these policy-makers, it is also important to know that the dominant pattern of high meat consumption is supported by externally motivated consumers and by those with a lower level of education. As these groups are not in a position to change very fast, it may be reasonable to nudge them to make some positive changes (Thaler & Sunstein, 2009). Policy-makers may address these problems

by making "green" and healthy choices more visible and more easily available. More generally, policy should communicate and commit to the social norm of a more caring approach to food that fits into a pluralistic society. This may involve stimulating a rich set of options to replace intensively produced meat by plant-derived protein products. To accommodate the diversity of the food-related decisions consumers make, these options should fit into the various cuisines, including traditional cuisine, quick and easy cuisine, meals at home and away from home. Together these may lead to a more sustainable food system in the future.

The research presented here had as its foremost aim to investigate the cultural tensions and associated value pluralism of people making food choices. The focus on meat is justified from an environmental and human health perspective and because of its cultural significance, which has always given meat a special status in the human diet. From an environmental perspective, dairy products also need to be considered and it would be interesting to investigate in future research if a similar analysis can be made for milk or cheese. In fact, the relevance of dairy underlines the importance of a culturally informed analysis, because research has shown that the ways in which populations provide their protein needs is specific to the cultural, economic and ecological context (de Boer, Helms, & Aiking, 2006). It depends, therefore, on the country whether the consumption of dairy plays an important role. Countries where the consumption of dairy productions is traditionally high, such as Sweden, Finland and the Netherlands may consider dairy as a staple food. Convincing consumers of the negative environmental impact of consuming dairy may therefore be even more problematic than in the case of meat.

4.5 References for Chapter 4

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4.6 Appendix: Tables

Table 4.4: Types of food-related motivation (mean rating[1]), SD and loadings after Promax rotation)

Items	M	SD	Component loadings			
			Extrinsic orientation toward food	Intrinsic enjoyment of food	Valuing the food-nature connection	Ambivalence about food
I have great trust in the quality of food in the supermarket.	3.20	1.25	.68	-.02	.26	-.26
As an ordinary consumer one shouldn't make too much fuss about food.	4.50	1.66	.64	.10	-.32	-.02
I don't need to know exactly how my food is produced.	4.11	1.64	.64	-.01	-.30	-.04
I like it best to buy my food packaged, I believe that's more hygienic.	4.13	1.41	.60	.02	.16	.14

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Items	M	SD	Component loadings			
			Extrinsic orientation toward food	Intrinsic enjoyment of food	Valuing the food-nature connection	Ambivalence about food
I find all these labels and quality marks on food packages unnecessary.	4.61	1.76	.50	.17	-.38	-.08
To me it's convenient when a product I purchase is more or less ready to eat.	4.19	1.48	.48	-.22	.07	.29
What I primarily enjoy is the conviviality of eating with others; the food itself is less important to me.	4.29	1.50	.45	.14	-.16	.19
I like it best to purchase everything in one shop.	3.31	1.58	.44	-.29	.35	.15
I like to take bargain offers in order to shop inexpensively.	2.84	1.32	.41	.09	.30	-.10
I feel happy when I have time and attention to cook.	3.42	1.45	.16	.71	.18	-.18

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Items	M	SD	Component loadings			
			Extrinsic orientation toward food	Intrinsic enjoyment of food	Valuing the food-nature connection	Ambivalence about food
I like to feel a personal connection with the person I buy my food from.	4.64	1.48	.09	.67	-.05	.22
I try to buy food from smaller shops to support middle-class local retailers.	4.60	1.44	-.00	.66	-.19	.20
When I eat, I regularly pause to experience what something tastes like exactly.	3.84	1.40	-.06	.59	.14	-.06
I prefer to prepare food myself because I want to eat everything as pure as possible.	3.87	1.61	-.05	.56	.21	.01
It's important to me that my food choices are not harmful to the natural environment.	3.17	1.24	-.01	.09	.69	.03

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Items	M	SD	Component loadings			
			Extrinsic orientation toward food	Intrinsic enjoyment of food	Valuing the food-nature connection	Ambivalence about food
As human beings we are part of a universal whole. In essence, we are connected with all life on earth.	3.10	1.34	-.00	.08	.62	-.00
If I do not eat well, I can't stay healthy.	2.28	1.18	.14	-.01	.60	-.25
When I eat meat, I am jointly responsible for the way the animal has lived and been treated.	3.70	1.60	-.08	.02	.57	.21
The way I eat is often not what I would ideally like it to be. I regularly make concessions because I find other things more important.	4.54	1.50	.08	-.02	-.06	.67
I diet regularly. This has great influence on my food choice.	4.93	1.64	-.02	.16	.01	.66
Food is often an irresistible temptation. Sometimes I feel guilty about things I've eaten.	4.85	1.65	-.03	.04	-.00	.66

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Items			Component loadings			
	M	SD	Extrinsic orientation toward food	Intrinsic enjoyment of food	Valuing the food-nature connection	Ambivalence about food
I don't like cooking very much. Often I find it a burden to prepare a meal.	4.92	1.75	.11	-.37	-.04	.51
I'm most concerned about nutritional value, calories and fat percentage of my meal.	4.25	1.54	-.08	.27	.21	.45
I consider the things we eat, such as animals and plants, as ensouled.	4.78	1.38	.10	.23	.27	.31
Eigenvalues			2.98	2.91	2.87	2.41
Alpha			.69	.68	.68	.61

Table 4.5: Regression of type of food-related motivation on personal characteristics

Predictor	Intrinsic enjoyment of food		Valuing the food-nature connection		Ambivalence about food		Extrinsic orientation toward food	
	Step		Step		Step		Step	
	1	2	1	2	1	2	1	2
	beta	beta	beta	beta	beta	beta	beta	beta
Gender (female)	-.04	.05	.10**	.16*	.13***	.13*	-.01	-.04
Age	.18***	.11**	.22***	.22***	-.14***	-.63**	-.09**	-.77***
Age-squared/49						.54**		.76***
BMI	-.06	-.06	-.07*	-.07*	.20***	.21***	.06*	.08**
Education	-.04	-.03	.08*	.08*	.02	.01	-.18***	-.19***

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Predictor	Intrinsic enjoyment of food		Valuing the food-nature connection		Ambivalence about food		Extrinsic orientation toward food	
	Step		Step		Step		Step	
	1	2	1	2	1	2	1	2
	beta	beta	beta	beta	beta	beta	beta	beta
Spiritual or religious attitude	.15***	.16***	.13***	.13***	.01	.02	-.16***	-.16***
Adheres to the Protestant or Dutch reformed faith	-.10**	-.09**	-.08*	-.07*	-.01	-.02	.09**	.07*
Dummy (1= living with others)	.02	.07	-.09**	-.10**	-.05	-.06	-.03	-.08*
Dummy (1= does most of the cooking)	.14***	-.25**	.04	-.05	-.10**	.16	-.06	.30**
Time spent on eating a meal	.14***	.13***	.07*	.06*	-.07*	-.05	-.05	-.03
Number of other household members		-.08		.01		.05		.10*
Dummy (1= living with children)		-.13**		-.01		.01		.06
Dummy (1= is a male who cooks)		.12*		.06		-.00		-.04

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Predictor	Intrinsic enjoyment of food		Valuing the food-nature connection		Ambivalence about food		Extrinsic orientation toward food	
	Step		Step		Step		Step	
	1	2	1	2	1	2	1	2
	beta	beta	beta	beta	beta	beta	beta	beta
Time spent on cooking		.34***		.04		-.26**		-.34***
R square	.097	.142	.096	.098	.068	.085	.072	.107

*p $<$ .05. **p $<$ .01. ***p $<$ .001.

Table 4.6: Ordinal regression of sustainability-relevant variables on personal characteristics and type of motivation

Predictor[a])	Quantity of meat consumption		Purchase of organic meat		Purchase of meat replacers		Choices of plant-based snacks	
	Step		Step		Step		Step	
	1	2	1	2	1	2	1	2
	b	b	b	b	b	b	b	b
Gender (female)	-.30***	-.23***	-.03	-.13*	.20**	.10	.30***	.22***
Age	-.28***	-.25***	.10	-.05	.07	-.04	.27***	.13*
BMI	.26***	.30***	-.12	-.09	-.18**	-.19**	-.28***	-.25***
Education	-.32***	-.28***	.41***	.33***	.39***	.34***	.51***	.44***
Community size	-.14*	-.12*	.15*	.14*	.22***	.20**	.28***	.26***

[a]All predictors have been standardized.

Table 4.6 continued from previous page.

Predictor[a])	Quantity of meat consumption		Purchase of organic meat		Purchase of meat replacers		Choices of plant-based snacks	
	Step		Step		Step		Step	
	1	2	1	2	1	2	1	2
	b	b	b	b	b	b	b	b
Intrinsic enjoyment		-.05		.20**		.03		.28***
Valuing the food-nature connection		-.19**		.34***		.49***		.29***
Ambivalence about food		-.30***		.16*		.26***		.10
Extrinsic orientation		.34***		-.55***		-.26***		-.54***
Nagelkerke R2	.093	.156	.064	.195	.076	.168	.146	.269

*p < .05. **p < .01. ***p < .001.

[a]All predictors have been standardized.

Table 4.6 continued from previous page.

Predictor[a])	Quantity of meat consumption		Purchase of organic meat		Purchase of meat replacers		Choices of plant-based snacks	
	Step		Step		Step		Step	
	1	2	1	2	1	2	1	2
	b	b	b	b	b	b	b	b

[a]All predictors have been standardized.

Chapter 5

Can we cut out the meat of the dish?

Constructing Consumer-Oriented Pathways Towards Meat Substitution

5.1 Introduction

The high consumption of animal based proteins, especially meat, has been identified as one of the most relevant topics to be addressed if Western consumers are to shift towards a more sustainable diet (Leitzmann, 2003; Pimentel & Pimentel, 2003; Reijnders & Soret, 2003; Stehfest et al., 2009; Steinfeld et al., 2006). The scale and intensity of animal production generates an increasing proportion of global environmental pressure, including climate change. Stehfest et al (2009) point out that the large impact of the livestock sector on climate change is regularly overlooked, while a global transition towards low-meat diets, which are also desirable for health reasons, may reduce the costs of climate change mitigation by as much as 50% in 2050. In Western countries such as the Netherlands, where meat consumption has been stabilizing around 86.7 kg (meat with bones) per capita per year (PVE, 2010), the main goal needs to be a (partial) substitution of proteins of animal origin by plant proteins (Aiking, 2011; Gerbens-Leenes, Nonhebel, & Krol, 2010; Smil, 2002). Due to the overall popularity of meat and the great variety of factors that influence food patterns, however, it may take a profound societal transition to achieve this goal. Although the need for a substitution has frequently been advocated, only few studies have discussed consumer readiness and willingness to eat a more plant-based diet (de Boer & Aiking, 2011; Elzerman, Hoek, van Boekel, & Luning, 2011; Lea, Crawford, & Worsley, 2006; Wansink, 2002). This chapter examines survey data from Dutch consumers on their practices related to meat, meat substitution and meat reduction in order to identify some feasible pathways for a transition towards a more plant-based diet.

One of the ways to study pathways for a transition is to look at the changes of the recent past. This perspective is crucial to better understand meat's special

status (deFrance, 2009; Fiddes, 1991) and the interrelated character of continuity and change in food consumption, which underlies the structural aspects of meals (Mennell, Murcott, & van Otterloo, 1992). Other relevant literature to consider includes the lessons drawn from effective, protein-related dietary changes (Wansink, 2002). According to psychological motivation theory (Ryan & Deci, 2000), the essence of making effective changes is that new behaviour must be to some degree congruent with the rest of the behaviour of the consumer. In other words, the range of meat-free options that are currently available should match the practices and the motives of consumers who may be ready to adopt a particular option. Finding those matches is an important step to identify potential pathways, as will be shown in the next sections.

A key strategic point is that meat's special status can be distinguished from its mass consumption. Although complex societies throughout history made use of animals and their meat to provide food, to establish social distinctions as wealth and status and to foster social unity through the symbolic manipulation of animals in ritual (deFrance, 2009), the upsurge in consumption of meat is a relatively recent phenomenon. The food historians Teuteberg and Flandrin (1999) and the geographer Grigg (1995) have noted that the transition from cereal protein[1] (i.e. bread) to animal derived protein in Europe was finalized only after World War II. Nevertheless, most Western European countries belonged to the group of major meat consumers already before that, which may have paved the way for the steep increase that followed. Today, meat consumption is the result of a chain of industrial activities that produce highly standardized meat products, commonly sold in supermarkets and de-animalized to avoid reminding customers about the link between the meat dish and the killing of an animal (Vialles, 1994). Hence, it is not meat's special status that has to be the primary focus of change efforts, but its heavily routinized consumption, which accounts for the sheer volume of meat.

The main reason why meat's special status still needs attention is that it is closely connected to the structural aspects of meals. The well-known anthropologist Mary Douglas (1972) has shown that meals follow an underlying system of rules, which amounts to a grammar comparable to that of a language. She identified persistent trans-cultural hierarchies of people's valuation of foods, in which meat ranks highest, followed by fish and then other animal derived products (Douglas & Nicod, 1974). Also, she showed that meals typically consist of a tripartite structure of meat/fish, a staple and one or two different vegetables. As the research of Douglas was conducted in the 70s of the previous century, it is an open question to which extend these patterns are still in place. Even if they are not, however, these patterns are likely to have influenced consumers who have grown up in this era. It is also important to consider that Douglas' research was conducted in the United Kingdom and applies typically to Western European

[1] Hereafter, we refer to plant protein.

countries. Her findings might not easily translate to Chinese or Indian food culture where meals are composed in an entirely different manner. The Netherlands, however, fit in well with Douglas' findings. A commercial study that surveyed 5000 households in 2005 shows that their meals had a quite consistent tripartite structure of a staple, a vegetable and a protein component, typically meat. More precisely, on the day of the fieldwork (i.e. a Wednesday) 52% consumed potatoes (boiled or meshed), 86% used a vegetable and 86% prepared meat (Knorr, 2005). Yet, Italian and Asian dishes were also served, which may indicate an incremental change of meal patterns towards new meal formats.

The role of meal formats in cultural continuity and change can be seen in many historical examples of changes in dietary habits. In the past, substitution of particular foodstuffs was often a superimposed change of eating habits due to scarcity and limited choices. According to the historian Montanari (1994), transitions in food consumption patterns usually happen by way of substitution with a food that can take over the function of the foodstuff that fell away. The same replacement rules are relevant for planned changes, for instance, when unfamiliar foods can be introduced by combining them with existing foods. An example occurred during World War II, when U.S. citizens were encouraged to incorporate protein-rich organ meats into their protein-deficient diets (Wansink, 2002). Obviously, efforts to change eating habits require a thorough understanding of consumers' responses in terms of food acceptability, and food preparation and serving methods. In drawing lessons from the recent history of dietary changes, Wansink (2002) notes that, in its most basic form, an acceptable food must be available; must taste good; must be familiar; and must look, taste, and feel as expected.

To achieve a partial substitution of animal-based proteins by plant proteins a variety of options is currently available. It should be noted, however, that many conventional Western meat-free dishes contain other animal-based products such as fish, eggs, cheese or other dairy products. From a sustainability perspective, these products offer not much advantage compared with meat (de Boer & Aiking, 2011). Other popular options are stir-fries and pasta dishes, which may have slightly neutralized the role of meat as a centrepiece on the plate, such as in the Mediterranean diet (Montanari, 1994). Also, there are various possibilities to prepare meals without animal-based products. Supermarkets in the Netherlands nowadays store a variety of products that are marketed as meat substitutes. While the turn-over of meat substitutes grows steadily, absolute market share is still low by about 1% of the market for meat and meat products (Aurelia, 2002). Still, 36% of households have been reported to purchase meat substitutes occasionally (GfK Panel Services Benelux, 2009). The products are sold as burgers, stir-fry cubes or "mince-meat" and they usually derive from soybeans. The Dutch company Ojah® produces a variety of 100% plant protein substitutes that resemble the texture and bite of meat. Other products are, for example, Valess® that is based on dairy and algae or Quorn® that is derived from a fungus (Peregrin, 2002).

We refer to these products as instant meat substitutes because they are marketed as such and are processed, prepared and labeled for use instead of meat. That way, consumers can easily identify them as relatively familiar alternative sources of protein. We mention tofu as a separate foodstuff because it is also sold in raw form. Earlier studies have shown that meat substitutes appeal to a wide range of consumers, above and beyond the traditional vegetarian market (Hoek, Luning, Stafleu, & de Graaf, 2004; McIlveen, Abraham, & Armstrong, 1999; Sadler, 2004).

In addition to the instant meat substitutes, there is extensive variety of foods containing high-quality plant protein, which include many foodstuffs that are not foreign to Dutch cooking such as beans, pulses, nuts and whole grains (McGee, 2004). It requires, however, some nutritional knowledge, some knowledge of preparation and an adjustment of personal food habits to use them. Hence, it is highly unlikely that the majority of consumers are aware of the large variety of plant protein sources (Lea et al., 2006). Organic stores that usually cater for specific consumer segments store many plant protein sources in pure form and some instant substitutes derived from these sources (i.e. lentil or falafel burgers). The stores are often prepared to serve customers with vegetarian, macrobiotic or anthroposophical diets, which entail food styles that are less geared towards the consumption of meat to begin with. Instead of substitution, the products offered are simply aimed at providing a healthy source of (plant) proteins.

Last but not least, insects are being considered as a potential replacement for animal derived proteins (Vogel, 2010). Some organizations currently lobby in the Netherlands for the use of insects for human consumption and some stores have already included mainly locusts and mealworms into their assortment. The insects are marketed as a delicacy and can be ordered in some restaurants and some Internet shops specializing in exotic (meat) products. The consumption of entire insects, as we know it from many Asian and African countries, still seems unlikely to take over the West, as reminders of livingness or of particular textures may trigger aversion (Martins & Pliner, 2006). Therefore, scientists currently also focus on the use of insect protein in convenience products, replacing protein from other sources (Verkerk, Tramper, van Trijp, & Martens, 2007).

The broad variety of options suggests several pathways for a transition, which will be more or less different from existing eating patterns, and may or may not involve new foods. The pathways have to be targeted to consumers with different degrees of readiness and willingness to change eating habits. Their readiness to adopt a particular substitute will depend on current practices, such as preferred meal formats, product familiarity, cooking skills, and general preferences for plant-based instead of animal-based foods. Because the heterogeneity of culinary practices and beliefs regarding use of protein products may be very large (Barr & Chapman, 2002; Newby & Tucker, 2004), it is important to consider two broader motivational orientations that capture consumers' concerns with food. Using a survey questionnaire among the general population in the Netherlands, de Boer and colleagues (2007) have shown that consumers' level of involvement

in food can be separated into taste-oriented and reflection-oriented motivational goals. Both of them are relevant in the present context. The first orientation includes the cultivation of an adventurous taste, which contrasts with the opposite pattern of preferences for an ordinary meal. As far as plant-based meals increase the variety of food choices, they may be attractive to consumers who are driven by an adventurous taste (Bäckström, Pirttilä-Backman, & Tuorila, 2004; Ullrich, Touger-Decker, O'Sullivan-Maillet, & Tepper, 2004). Insects may also be attractive to consumers with an adventurous taste. The second orientation involves reflective attention to the wider implications of food choices in terms of health, naturalness of the food, weight control and ethical considerations (de Boer, Hoogland, & Boersema, 2007; Pollard, Steptoe, & Wardle, 1998), which contrasts with the opposite pattern of being easy about food. A reflective orientation may be associated with a preference for more plant-based proteins and relatively small portions of meat (de Boer, Boersema, & Aiking, 2009).

In sum, this chapter aims to clarify attitudes towards various substitution options and identify pathways towards the (partial) substitution of meat in the future. It tries to accommodate a number of theoretically relevant distinctions, such as preferred meal formats, as well as taste-oriented and reflection oriented food-choice motives, in addition to more practical distinctions regarding product familiarity, portion size and cooking skills. A wide range of strategically relevant options will be considered, both existing and novel ones. The next section describes the design and the content of the survey on these topics.

5.2 Method

Procedure

The data set is based on a nationwide sample of 1083 consumers in the Netherlands. The very high degree of Internet penetration in this country (about 93% of the population) enabled a survey among consumers with Internet access. The stratified sample was drawn from a large panel of persons who are willing to participate in web-based research for a small fee. In November 2010 the sample received a temporary link to a survey about food (response rate 68% within two weeks). Due to the stratified sampling procedure, the data showed a representative distribution of the main demographic characteristics, i.e. gender (50% female), age (between 18 and 92, mean 49.5), level of education (24% primary and lower secondary, 51% upper secondary, 25% tertiary level) and place of residence. The questionnaire comprised modules with questions about practices regarding use of meat and meat substitutes, food choice motives, portion sizes, attractiveness of meat substitutes, and some household characteristics.

Meal format and food practices

The questions about meal format and food practices were single-item measures of relevant differences. The question on the preferred meal format was a choice between two photos showing a meal consisting of loose components (a cutlet, potatoes and a vegetable arranged separately) and a meal that combines ingredients (ground meat in a pasta dish). The question was "Which of these types of meal do you prefer?" and had a dichotomous response format. Other questions asked for the number of meat eating days ("How many days per week do you eat your main meal with meat (including chicken)?") and regularly eaten kinds of meat (see below). The subject of meat substitution was introduced neutrally, without further mention of health, environmental or animal welfare motives that people might have for skipping meat in their diets. Questions included "On the days you don't eat meat, do you deliberately substitute something for it?" (The answers were "Yes" and "No"). "With what do you substitute it?"(see below). "Do you buy meat substitutes?" ("Regularly", "occasionally", "rarely", "tried once", "no"). "Would you like to learn better how to cook vegetarian?" ("Certainly", "perhaps", "no, I am not interested", "no, I can do it already").

Food choice motives

The items on food choice motives were developed by de Boer and colleagues (2007) on the basis of Higgins' (1997; 2006) motivation theory to measure two important motivational orientations regarding food, namely the cultivation of an adventurous taste and the reflective attention to the wider implications of food choices. The items were written in terms of short, positively worded portraits of persons who show different degrees of involvement in food, both in taste-oriented and reflection-oriented ways. The female version of a taste-oriented item is: "She feels proud of her taste. She believes that her food choices are very attractive." A newly added item is "She likes many different foods. She is also a great taster." The opposite is a preference for ordinary meals. An example of a reflection-oriented item is: She is very mindful of food. She wants to eat sensibly." In this case the opposite is being easy about food. Participants were asked to compare the portrait to themselves and to rate on a 7-point scale how much like you the person is. The answers were centered to correct for individual differences in average rating levels. In agreement with earlier work, the principal component analyses showed that the 12 items assessed two independent components of food choice motives, taste-oriented and reflection-oriented respectively (Cronbach's alpha .74 and .62). It should be noted that the participants were not considered to be taste motivated or reflective motivated in absolute terms; both components provide a continuum from relatively high to relatively low and the distribution of the scores did not differ significantly from a normal distribution (Kolmogorov–Smirnov test, z= .91 and 1.17).

Ratings of substitution options

Participants were presented with 13 photos of various vegetarian meals, which they had to consider separately. In order to harmonize the options with country specific food styles, the selection was informed by qualitative interview data collected at an earlier stage in the research and in parallel various shops were scanned for product offers. Along with more or less common options to substitute meat, the survey included one hypothetical image of a deep-freeze pizza with an enlarged ingredients list, where insect protein was highlighted. This product is currently non-existent. Thus, presently existing options were combined along with innovative future options that are currently beginning to show.

The pictures were used in order to help participants imagine novel options and overcome a possible bias of unfamiliarity with meat-free meals. Participants were asked to score separately the attractiveness and the chance that they would prepare a similar meal at home. How attractive are these meals to you? How big is the chance that you would prepare them at home, given that ingredients are easily available? The ratings were made on a 7-points Likert scale (1=very attractive to 7=very unattractive; 1=highly likely to 7=highly unlikely).

Preferences for plant-based snacks

A four-item scale was used to assess general preferences for either foods of animal origin versus foods of plant origin, apart from the main meal. This scale was based on three questions addressing the preference for various meat or vegetarian fillings of sandwiches (shown in photos) and a question on snacks, which were animal-based (including hybrid products consisting of partly meat and partly an unspecified meat substitute) or vegetarian (including algae and lentils). The results showed a fairly consistent pattern of preferences in favour of either meat-based or plant-based food options (Cronbach's alpha .61). The emphasis was on the meat-based options, which were chosen four times by 39%; 5% chose four times the plant-based option. Choosing the plant based options correlated positively ($r = .54$, $p < .001$) with answers to the question "Would you like to learn better how to cook vegetarian?" Both measures reflect a positive attitude towards vegetarian options.

Portion size

The participants were shown three photos of a plate with a piece of meat that was 50, 100 or 150 gram. These weights were also given in the descriptions of the photos. Each photo was accompanied by the question whether the portion size was too small, enough or too large (i.e. creating non-monotonic item response functions). After dichotomizing the responses to the 50 and the 150 gram items, the three items yielded a reliable score (Guttman's Lambda 5 = .63).

Data analysis

The data on meat consumption practices were subjected to principal component analysis and multidimensional scale analysis to identify patterns that may influence judgments and use of meat substitutes. Principal component analysis was also used to define patterns in the ratings of the substitution options, which were correlated with the other variables. All analyses were conducted with SPSS 15 for Windows.

5.3 Results

Meat-related practices

The first part of the analysis focussed on meat-related practices. When asked about the main meal, the participants reported, on average, a number of 5.4 meat days per week (the median was 6). Eating meat every day was reported by 28% but 23% answered not to eat meat more than 4 days a week. The number of vegetarians was low; 1.2% of the sample indicated to be a full vegetarian or eat meat less than once a week. Consumers with reflective attention to the implications of food choices for health and environment reported a slightly smaller number of meat days per week ($r = -.17$, $p < .001$). Those with an adventurous taste were not different from the others. A higher number of meat days per week was correlated with a preference for relatively large portions of meat ($r = .20$, $p < .001$). The most preferred portion size was 100 gram (versus 50 and 150 gram).

Given the choice between meals that combine ingredients (i.e. ground meat in a pasta dish) and meals consisting of loose components (i.e. a cutlet, potatoes and a vegetable arranged separately) 46% preferred the first and 54% the latter. The preference for the component meal was associated with a slightly higher number of meat days ($r = .09$, $p < .01$), but it was somewhat stronger correlated with choices for particular cuts of meat and with the participants' age. The participants were asked to indicate which cuts of meat they regularly eat by selecting a maximum of three from a list of popular cuts in Dutch households. A principal component analysis of the answers showed that choices for particular meat cuts were associated with each other and with the preferred meal format (Table 5.1 page 119). Firstly, participants who regularly eat sausages and minced meat were less likely to mention the two steak options offered in the choice set and vice versa, but all these options may fit into the same meal format. Secondly, those who were in favour of the component meal format were less likely to mention chicken and more often eat pork chop. The correlation analysis revealed that younger participants under the age of 55 years more often preferred combined meals while older participants preferred the component meal ($r = .21$, $p < .001$) and the pork chop ($r = .23$, $p < .001$) but not so much the chicken ($r = -.16$, $p < .001$). Hence, the data showed a cohort effect of changing meat-related meal

patterns.

Table 5.1: Meat choices and meal formats, frequencies and loadings using rotated Varimax principal component analysis

		Component loading	
Items[a]	Frequency	1	2
Regularly eats sausage	25%	.75	.07
Regularly eats minced meat	74%	.60	-.12
Regularly eats steak	19%	-.50	-.21
Regularly eats beef cutlet	30%	-.44	.20
Regularly eats pork chop	27%	-.21	.67
Prefers plate of separate components	54%	.07	.63
Regularly eats chicken	75%	-.05	-.63
Eigenvalues		1.41	1.34

a) All items are dichotomous. Participants made a maximum of three meat choices from the list.

Substitution patterns

The participants who reported to eat meat less than 5 days per week were asked whether they deliberately replaced meat by something else. Most of them did (81%, n= 253), but this was less common among the older participants (r= –.24, p< .001), whereas household income did not make a significant difference (r= –.10, p> .10). The participants who said deliberately to substitute meat (n= 204) were asked what they used instead. They could make a maximum of three choices from a list of potential substitutes or they could indicate substances that were not specified in the list. Table 5.2 (page 121) shows the answers to this question and

the results of a multidimensional scale analysis to identify substitution patterns. The analysis produced a one-dimensional gradient that ran from fish, via eggs, cheese to instant meat substitutes, followed by lentils or other pulses, nuts, and finally seitan, tempeh and tofu. The ordering of the items shows that the most popular meat substitutes were other products of animal origin. At a general level, the gradient runs from "conventional meat free meals" to "real vegetarian meals". By conventional meat-free meals we mean meals in which meat is replaced by either other sources of animal protein, such as fish, eggs or cheese or by instant meat substitutes. The meals often maintain the conventional component meal structure. Real vegetarian meals are based on a broad variety of mainly plant proteins and a transition has taken place away from existing meal formats and food hierarchies. The idea of meat substitution has become less prominent.

A crosscheck with the data on the number of meat days provided additional insights into the gradient model. In this segment of participants (n= 204), the number of meat days ranged from 4 to 0. A smaller number of meat days was associated with fewer choices of fish (r= –.36, p< .001) and egg (r= –.12, p< .10); it had a non-monotonic (rise-then-fall) relationship with choices of cheese (r= .06, Eta= .24), and was correlated with more frequent choices of instant meat substitutes (r= .39, p< .001), lentils or other pulses (r= .17, p< .05) and tofu (r= .20, p< .01). Despite this broad gradient, the patterns were more heterogeneous at a detailed level, which may partly depend on the sheer number of observations and on preferred meal formats. For instance, cheese was more often mentioned by those who were in favour of the meals that combine ingredients (r= .19, p< .01). Hence, it would be too strong to conclude that meat substitution simply followed a linear path.

Substitution options

To measure the responses of all participants to various substitution options, 13 pictures were presented to them in combination with two questions. First, they were asked to rate the attractiveness of the meal and second, they were asked to rate the chance that this meal would be served at their homes, given the ingredients were easily available. Table 5.4 (page 133) presents the items in order of decreasing mean ratings, from the omelette to the salad with fried mealworm. The decreasing order of attractiveness was almost the same as the decreasing order of the chance that this meal would be served in their homes. In general, participants evaluated the substitution options with positive to neutral scores (from 2 to 4 on the 7-points scale). Except for Seitan, the first 8 items on the list are relatively well known edibles, while Indian Daal is slightly more exotic and as a dish possibly unknown to most participants. In contrast, the photos of meals with visible insects were rated much more negatively. A relative exception was the protein derived from insects and processed in pizza, which was evaluated less negatively than the other insect dishes. Another less negative rating compared

Table 5.2: Meat substitution practices (frequencies and coordinates in multidimensional scale analysis, model = interval, data = binary, 1 dimension, normalized raw stress = .11)

Items[a]	Frequency	Coordinate
Fish	76%	1.24
Egg	49%	.78
Cheese	34%	.37
Instant meat substitutes	26%	.02
Lentils or beans	17%	-.24
Nuts	9%	-.41
Seitan	1%	-.51
Tempeh	3%	-.53
Tofu	14%	-.72

a) Participants who reported to eat meat less than 5 days per week and to substitute meat (n = 204) made a maximum of three choices from the list of nine options.

to the fully visible insects was given to the chocolate-coated locusts.

The principal component analysis was computed on all the ratings, except those for the omelette, which was just a marker for the use of the rating scale. The scree plot suggested four components, which captured 67% of the variance. Table 5.4 (page 133) presents the loadings of the substitution options on the following components:

1. Tofu stir-fry, a tofu snack, Seitan stir-fry, Tivall minced in sauce and Tivall vegetable steak.
2. All dishes with visible insects.
3. Indian daal, Moroccan couscous, Pasta pesto with nuts.
4. Pizza with protein of insects.

The four components suggest some interesting underlying orientations of the participants. The first component consists of options where meat is deliberately substituted. The photos depicted meals with substances that imitate the role of meat, while leaving no doubt about it being a substitute. A positive rating seems the choice of people who accept and utilize the concept of meat substitution. For ease of reference it is called here the soy-adepts component.

The second component consists of all dishes with visible insects, including the chocolate-coated locusts that are still recognizable as insects. The loadings reflect a clear common theme, namely the unanimous rejection of insects as an attractive foodstuff. It is called here the insects component.

The third component consists of substitution options that are not necessarily eaten to deliberately substitute meat. It is a component that represents an incremental change towards a more vegetarian meal style, which often implies integrating or merging Dutch cooking with more exotic or foreign cuisines. It is called here the gourmet vegetarian component.

The fourth component is an interesting contrast to the insects component as it consists of the pizza with processed insects protein. This component loaded to a lesser degree also on some other easy-to-prepare meals, such as the pasta with pesto, the minced Tivall, and the fried and chocolate-coated locusts. This component seems to be utility driven and will be called the convenience component.

To clarify the factors that influenced the ratings of the substitution options, a set of correlations was calculated. For this purpose, the four components were analysed in parallel with another form of meat reduction, not covered by the substitution options, namely taking small portions of meat. Table 5.3 (page 123) presents the correlations between, on the one hand, the components of the substitution options, complemented by the preference for small meat portions, and, on the other hand, demographic and food choice variables. The latter include meat preferences, familiarity of the substitutes, cooking skills, attitudes towards vegetarian cooking, and food choice motives.

Table 5.3: Correlations between components of substitution options and preference for small meat portions, and demographic and food choice variables

	Components of meat substitution options				
	Soy-component	Visible insects	Gourmet vegetarian	Convenience component	Prefers small meat portions
Gender (male, female)	.06*	-.09**	.04	.01	.19***
Age	-.02	.01	.04	-.27***	.11***
Education	.11***	.01	.26***	.14***	.15***
Meat days per week	-.19***	.00	-.20***	.01	-.20***
Prefers meal with separate components	-.09**	-.00	-.27***	-.23***	-.01
Prefers small meat portions	.05	-.04	.13***	-.01	
Familiarity: regularly buys substitutes	.42***	.03	.27***	.06	.16***
Skill: able to cook vegetarian	.05	.03	.22***	-.04	.14***

Table 5.3 continues on next page.

Table 5.3 continued from previous page.

	Components of meat substitution options				
	Soy-component	Visible insects	Gourmet vegetarian	Convenience component	Prefers small meat portions
Wants to learn to cook vegetarian	.38***	.04	.36***	.14***	.18***
Preference: chooses plant-based snacks	.24***	.06	.51***	.02	.27***
Taste oriented food choice motives	.07*	.10**	.28***	.06*	-.02
Reflection oriented food choice motives	.18***	.00	.14***	-.14***	.30***

Table 5.3 (page 123) demonstrates that there were some specific differences related to gender, age and level of education. The preference for small meat portions was somewhat higher among females (r= .19) and persons with a higher age (r= .11) or higher education (r= .15). However, the older participants were less in favour of the convenience component with its prominent pizza (r= –.27). Except for the ratings of the visible insects, participants with a higher level of education responded somewhat more positively to the soy component (r= .11), the convenience component (r= .14) and, particularly, the gourmet vegetarian component (r= .26).

The meat-related practices were also significantly correlated with several components. The number of meat days was negatively correlated with the soy component (r= –.19), the gourmet vegetarian component (r= –.20), and the preference for small portions (r= –.20). Those who were in favour of the component meal format were more negative about the convenience component (r= –.23) and the gourmet vegetarian component (r= –.27). In contrast, the preference for small meat portions was slightly positively correlated with the gourmet vegetarian component (r= .13), but unrelated to the other components. Apparently, considering portion size is an option that serves as a supplement to the substitution practices.

A measure of the familiarity of the substitution options is the reported frequency of buying instant meat substitutes (8% "regularly", 9% "occasionally" 14% "rarely" 14% "tried once"). Those participants who buy this type of products gave more positive ratings to the soy component (r= .42) and to a lesser extent the

gourmet vegetarian component (r= .27), but not to the convenience and the visible insects component. Hence, familiarity with instant meat substitutes had no effect on the judgement of options that can be expected to be unknown to all participants.

Skill in the form of knowing how to cook vegetarian was reported by 11% of the participants; this answer was positively correlated with appreciation of the gourmet vegetarian component (r= .22). The ratings of the other options were not dependent on this cooking skill. Additionally, those participants who said that they would like to learn cooking vegetarian meals (10% "certainly", 28% "perhaps") gave more positive ratings to the soy component (r= .38) and the gourmet vegetarian component (r= .36). A closely related measure of vegetarian preferences, a general preference for plant-based snacks and fillings of sandwiches was also associated with positive ratings to the soy component (r= .24) and the gourmet vegetarian component (r= .51).

The two independent measures of food choice motives, which reveal taste-oriented and reflection oriented motives, had different correlations with the components. Overall, the appreciation of the substitution options increased when the participants had a more adventurous taste but this was most obvious with regard to the gourmet vegetarian component (r= .28) and the visible insects component (r= .10). A cross-check revealed that the correlation between taste-oriented motives and the visible insects component was the same for both sexes, although women gave slightly lower ratings to the visible insects (r= –.09). The second measure of food choice motives, which differentiates participants who are easy about food from those who are reflective about it, showed that the reflection oriented participants gave more positive ratings to the soy component (r= .18) and the gourmet vegetarian component (r= .14), but lower ratings to the convenience component (r= –.14). The most important characteristic of the reflection oriented participants, however, was a preference for small portions of meat (r= .30).

Overall, the correlations presented in Table 5.3 (page 123) are not very high. This means that the ordering of the 13 items from most liked to least liked did not completely change among the various categories of participants. For instance, the participants who preferred the combined meal format gave higher ratings to most of the items than the participants who preferred the component meal format and this difference may partly be explained by the fact that all photos depicted meals that combined ingredients, rather than featuring loose components. However, the ordering of the 13 items among both categories of participants was largely the same (Spearman's Rho = .95, p< .001; without including the 5 insect items Rho = .86, p< .01). This means that the participants had, to a certain extent, common assumptions about features that make a meal without meat more or less attractive.

5.4 Discussion

This study addressed current consumer practices regarding meat consumption and meat substitution in order to clarify attitudes towards various substitution options and identify pathways towards the (partial) substitution of meat in the future. Finding matches between meat-free options, on the one hand, and the practices and motives of consumers, on the other hand, is an important step to identify pathways for a transition. The key idea is that to create an effective dietary change, new behaviour must be to some degree congruent with the rest of the behaviour of the consumer (Ryan & Deci, 2000), which may include the cultivation of an adventurous taste (versus the preference for an ordinary meal) or reflective attention to the implications of food choices (versus being easy about food). The strength of this strategy is also that the primary focus of change efforts is not meat's special status, but its routinized consumption in terms of meat eating days and portion size. However, meat's special status should not be neglected, in particular as it appeared to be closely connected to the structural aspects of meals, and the frames of reference and skills of consumers.

Inspired by this structural thought on food consumption patterns (Douglas, 1972), special attention was paid to consumers' preferences for particular meal formats in which meat is treated as a dominant part of the dish or more as an ingredient. The results showed that the participants had fairly consistent preferences regarding meal formats, which shaped their daily choices of particular cuts of meat as well as their appreciation of meat substitutes. The preference for a component meal was more characteristic of the older participants, grown up during and shortly after World War II, who may be more dedicated to the tripartite structure of meals. This preference made meat substitution options less attractive, in particular dishes with a complete vegetarian meal style.

In contrast, the preference for meals that combine ingredients and the practice of a lower number of meat days per week were associated with a generally higher appreciation of substitution options. This relationship can also be clarified by a structural approach to food consumption patterns. Participants who reported to eat meat less than 5 days per week and deliberately replaced meat demonstrated a replacement gradient that ran from fish, via eggs, cheese to instant meat substitutes, followed by lentils or other pulses, nuts, and finally seitan, tempeh and tofu. Although meat substitution did not simply follow a linear path, this gradient suggests that participants made use of a hierarchy of foods when thinking of meat substitution. In accordance with Douglas' and Nicod's (1974) finding, the hierarchy features a superiority of products of animal origin above plant foods and cereals. The relevance of this hierarchy as a frame of reference is reflected in the consistency with which the participants made a number of choices in favour of either meat-based or plant-based fillings of sandwiches and snacks.

The ratings of the substitution options also revealed a number of structural differences. Meals where meat is deliberately substituted by substances that imi-

tate the role of meat were distinguished from meals that are not necessarily eaten to deliberately substitute meat, such as a more vegetarian meal style, merging Dutch cooking with more exotic or foreign cuisines. Familiarity with meat substitution is important for the appreciation of both options, but the latter requires more skill than the former and also a stronger preference for plant-based proteins and more taste-oriented food choices. For instance, the preparation of lentils (if not purchased in canned form) is rather cumbersome. Lentils mark the transition towards different meal formats and require skills and food knowledge that people may be less familiar with.

Another distinction is that between visible insects and processed insects protein. Both options were expected to be unknown to the participants and the ratings demonstrated a low level of appreciation, also among participants with an adventurous taste. However, invisible insects appeared to trigger less aversion than pictures that may contain reminders of livingness or of particular textures (Martins & Pliner, 2006). The higher score of chocolate-coated locusts compared with the fully visible insects suggests that presenting insects as a delicacy might be interesting for some consumers. Much more relevant is that processed insects protein may be seen as part of convenience products, which makes their presence less salient.

Before we move on to suggest pathways for substitution, we attend to some limitations of the study. In order to present insects in different ways, we chose to include chocolate-coated locusts because of the visibility of the insects, despite the fact that these cannot be considered a full meal. Future work could explore for example insects coated in a batter to suggest a hearty meal. More generally, the use of photos to measure responses to the substitution options serves to help the imagination of participants but it also entails that the characteristics making an option more or less attractive may not only be related to the way of substitution but also to characteristics of the context. However, that alone does not explain the pattern of correlations with preferred meal formats, product familiarity, skill, and food choice motives. Another limitation is that this type of survey has difficulties in incorporating the impacts of other household members on food choices. As Lea et al. (2006) mentioned, partners may play an important role in effecting dietary changes. However, a survey is not a reliable way to measure the interactions between household members. A further limitation is that this study is based on single country cross-sectional data, i.e. on consumers in the Netherlands. Generalization of the findings to the broader population may be limited by characteristics of the sample, the sampling method and the geographical scope of the study. Despite these limitations, we are confident about the robustness of our main results regarding pathways towards the (partial) substitution of meat in the future.

In considering these pathways, it is crucial to take due account of the structural distinctions mentioned above. They are closely connected with a number of other factors, such as the availability of products, their familiarity, ease of use, and fit

with accustomed meal patterns, which all are shaping consumers' food choices (Wansink, 2002). Hence, one of the more difficult pathways is one that challenges existing meal formats and hierarchies. This requires consumers who are able to make active efforts to break away from existing conventions. For instance, lentils, although not foreign to the local food culture, may be slightly out of fashion and products such as seitan and tempeh traditionally belong to Asian and Indonesian cuisine. To what extent consumers are aware of food choices that deviate from the cultural norm appeared to depend on their degree of education and other personal life experiences, such as their taste. Acquaintance with unusual meal styles, new cooking abilities, a propensity to try out unfamiliar foods may all be needed to explore meals without meat. In this way, eating "differently" can become an important part of one's identity (Jamison, 2003). For example, the New Age (van Otterloo, 1999) and the Slow Food (Parkins, 2004) movement illustrate what such food-related identities could comprise and they demonstrate how a change of diet is embedded in different philosophies of life. Change along this path is sensitive to cultural trends that may or may not accommodate a more sustainable diet and due to its ideological character it may require reflective attention to the wider implications of food choices.

A less difficult pathway does not challenge existing meal formats and hierarchies, but makes an incremental change towards more health-conscious vegetarian meals (Sadler, 2004). For instance, fish, eggs and cheese are already consumed on a regular basis and therefore are readily available as an alternative to meat. Although these options are not very promising from a sustainability perspective (de Boer & Aiking, 2011), the shift may be an intermediate step to get them out of routinized meat eating and subsequently enable the shift towards more plant-based options. Also, instant meat substitutes (including tofu) fit well in this pathway, because they are often marketed as a health-conscious choice, they easily substitute a piece of meat without any further adjustments to meal patterns and they may even be similar to meat in appearance (Hoek et al., 2011). They also allow the easy preparation of a vegetarian component alongside with meat in households where some people eat meat and others don't. This pathway agrees with what Hoek et al. (2004) observed in their analysis of differences between the ideological vegetarians and the more pragmatic users of meat substitutes. It is also a feasible option for older people, who, according to our findings, depend more on the component structure of meals.

Another pathway is to make substitution more compatible with convenience culture. One way to introduce unfamiliar foods is to combine them with existing foods (Wansink, 2002). The relatively positive score of the fictive pizza with processed insect protein, especially with younger people and less reflection oriented eaters, demonstrates the potential advantages of this path. Convenience oriented consumers who focus on the ease of use may not be too bothered by the idea of consuming insects since they disappear as an ingredient in the processed product and the product remains familiar on the surface. This finding suggests that

an introduction of insects as a foodstuff via this path is generally more recommendable than offering the pure insect as a food. More generally, the outcome suggests that there is great potential for the substitution of meat in convenience products, where meat as an ingredient is already less visible and the substitute can be appropriately combined with the meal (Elzerman et al., 2011).

A final pathway to accommodate the range of dietary practices regarding use of animal products involves portion size awareness. Our results indicate that considering portion size is an option that serves as a supplement to the substitution practices. Eating small amounts of meat went together with a smaller number of meat days per week. However, those participants who did appreciate the soy component and also ate meat did not necessarily choose to eat small amounts of meat. This difference may partly be a matter of meal formats, as small portions can easily be incorporated in a different type of diet, such as Mediterranean or Asian diet. Eating small portions may also require reflective attention from a person who considers the implications of food choices in terms of health, weight control and ethical issues (de Boer et al., 2009), which contrasts with less controlled patterns of behaviour of consumers who are easy about eating. The latter may be better off with an instant substitute. Still, the pathway is especially interesting because portion size is easily manipulated in food service. Institutional commitments to reduce meat intake, for example in company restaurants, can be undertaken along this path.

Despite its cross-sectional design, the study allows some speculations concerning cultural changes of diet. Differences between age groups potentially point to changing cultural patterns. The results showed that preferences with regards to meat as well as meat substitution and meal formats were influenced by the age of participants and may therefore be subject to cultural changes. The preferences of the younger generation indicate that new meal patterns have established in the Netherlands, in particular combined meal formats and associated kinds of meat such as chicken, sausages and ground meat, while the conventional component meal with typically a cutlet, seems to be fading. Meat's special status is less prominent in this pattern and this change may also simplify a substitution of meat. Although there is a growing interest in healthy eating and a varied diet, which includes incorporating more plant-based foods (Sadler, 2004), the data also underline that a high consumption of meat and a low regard for plant-based options are still the dominant cultural pattern.

Further research should address how the various pathways can be supported by policymakers in industry and government in order to promote changes in a sustainable direction. For instance, to facilitate these changes existing hierarchies of food can be addressed. As Nestle (2002) argues, food guide pyramids have an important role in communicating structural distinctions and hierarchies to consumers. On considering the Dutch example, it occurs that various sources of plant protein, like pulses, nuts and whole wheat, are separated from proteins of animal origin and grouped with breads, pasta and other sources of carbohydrates,

instead. An adjustment of this categorization can aid consumers substantially to (partially) substitute meat in the future. Moreover, the preferences of the younger generation indicate that new meal patterns are being developed, in particular combined meal formats, which may reduce the special status of meat and make substitution easier.

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5.6 Appendix: Tables

Table 5.4: Substitution options: Attractiveness of a plate and the chance of actually preparing a comparable meal at home (text without picture, mean rating1), SD and loading using rotated Varimax principal component analysis)

Food items (listed in order of mean rating[a])	M	SD	Component loading 1	2	3	4
Omelette[b])						
– attractiveness	2.41	1.40				
– chance of actually preparing	2.48	1.50				
Pasta with pesto from nuts and herbs						
– attractiveness	2.97	1.83	.26	-.11	.61	.46
– chance of actually preparing	3.15	1.92	.28	-.07	.62	.46
Tivall minced-meat, made from soy, here prepared in a tomato sauce						
– attractiveness	3.21	1.76	.65	-.04	.19	.42
– chance of actually preparing	3.75	1.95	.71	.02	.16	.32
Moroccan Couscous with chick peas and vegetable						
– attractiveness	3.86	1.95	.34	.05	.75	.14

Table continues on next page.

[a] Ratings on a 7-points scale (1=very attractive to 7=very unattractive; 1=highly likely to 7=highly unlikely)

[b] The omelette was not included in the principal component analysis

Food items (listed in order of mean rating)	M	SD	Component loading 1	2	3	4
– chance of actually preparing	4.23	2.04	.34	.10	.76	.12
Stir-fry with Seitan. Seitan is an old Japanese wheat product with a spicy taste and texture similar to meat						
– attractiveness	3.90	1.83	.76	.08	.32	.16
– chance of actually preparing	4.28	1.91	.76	.13	.33	.13
Tivall steak, instant meat substitute made of vegetables and soy						
– attractiveness	3.98	1.80	.75	-.01	.14	.20
– chance of actually preparing	4.45	1.91	.77	.03	.17	.13
Asian stir-fry with tofu and vegetables						
– attractiveness	4.10	1.88	.76	.09	.32	.03
– chance of actually preparing	4.49	1.92	.77	.12	.33	-.02
Tofu snack						
– attractiveness	4.33	1.77	.77	.12	.17	.04
– chance of actually preparing	4.86	1.80	.78	.15	.17	-.04
Pizza containing protein derived from insects						
– attractiveness	4.82	1.90	.18	.30	.06	.74

Table continues on next page.

Food items (listed in order of mean rating)	M	SD	Component loading 1	2	3	4
– chance of actually preparing	5.10	1.87	.19	.37	.08	.72
Indian lentil meal: Daal						
– attractiveness	4.89	1.88	.26	.09	.80	-.08
– chance of actually preparing	5.10	1.88	.29	.12	.80	-.09
Fried locust with chocolate coating						
– attractiveness	5.95	1.67	.08	.64	.01	.43
– chance of actually preparing	6.38	1.26	.09	.74	.02	.30
Locust salad. Locusts are a delicacy in many African countries; they taste spicy						
– attractiveness	6.07	1.40	.06	.77	.04	.20
– chance of actually preparing	6.24	1.36	.02	.73	.06	.11
Salad with fried mealworm						
– attractiveness	6.60	.93	.09	.84	.05	-.07
– chance of actually preparing	6.68	.87	.08	.82	.06	-.11
Eigenvalues			6.23	3.82	3.80	2.26

Chapter 6

Climate change and meat eating: An inconvenient couple?

6.1 Introduction

Promoting changes in the Western diet from meat eating toward more plant-based foods is considered an interesting and little explored option for mitigating climate change (Carlsson-Kanyama & González, 2011; Gerber, Key, Portet, & Steinfeld, 2011; Popp, Lotze-Campen, & Bodirsky, 2011; Stehfest et al., 2009; Steinfeld et al., 2006). A recent study estimates that global livestock production is responsible for around 12% of global greenhouse gas emissions (Westhoek et al., 2011). This is due to a number of factors, mainly emissions from animals and manure, the cultivation and fertilization of feed crops and pasture, land-use changes, such as deforestation and grassland conversion, and emissions caused by the production of inputs (such as fertilizers), transporting and processing. These pressures have been caused by the massive growth of industrialized animal production during the 20th century, which made animals rather than bread the chief source of protein in Western countries (Grigg, 1995; 1999). As many people in developing countries use their growing income to follow this trend, a continued growth of both world population and per capita income may require a doubling of animal production by 2050 (Steinfeld et al., 2006).

Against this background, Stehfest et al. (2009) estimate that a global transition toward low-meat diets may reduce the costs of climate change mitigation by as much as 50% in 2050. This transition is also likely to yield additional benefits, especially for public health, because livestock products are not only a source of some essential nutrients but also provide large amounts of saturated fat, which is a known risk factor for cardiovascular disease (Friel et al., 2009). In Western countries such as the Netherlands, the transition requires a partial replacement of animal proteins by plant proteins, which is expected to encounter resistance from consumers (Friel et al., 2009; MacMillan & Middleton, 2010). Although dairy products are also important (Risku-Norja, Kurppa, & Helenius, 2009), we

decided to focus this research on the question how consumers will respond to the idea of eating less meat for mitigating climate change. The present paper aims to explore this question using a nationwide sample of consumers in the Netherlands, where meat consumption has been stabilizing around 87 kg (meat with bones) per capita per year (Product Boards for Livestock, 2003). Theoretically, our exploration focuses on several key motivational processes that may explain how meat choices might be affected by personal values related to nature and climate change.

Meat eating and values

A suitable framework to study the relationship between people's activities, such as eating, and their values is Self-Determination Theory (SDT, see Deci & Ryan, 2000; Kasser, 2002; Lavergne, Sharp, Pelletier, & Holtby, 2010; Ryan & Deci, 2000). Instead of treating motivation as a singular construct, SDT and other recent contributions (see Higgins, 2012) offer a set of subtheories about motivational dynamics, which, in the case of SDT, pay special attention to a person's tendencies to grow and to integrate experience. These tendencies are closely related to the personal importance of an activity. One of SDT's insights is that as the importance of an activity increases the person will become more conscious of its value-relevant aspects and will tend to integrate them within his or her core values in order to secure his or her well-being (Kasser, 2002; Vansteenkiste, Soenens, & Vandereycken, 2005). The reason why the activity gains importance may be the person's awareness of its environmental consequences, as Stern and his colleagues propose in the Value-Belief-Norm (VBN) theory (Stern, 2000; 2011), but there may also be other reasons. To make the activity more congruent with one's values, it may have to be adapted or changed over time. Whether and when the internally motivated attempts to improve the activity's integration will be effective depends on the person's values, competences and perceived choices. An alternative to internally motivated change is externally motivated change, for example, to bring the activity more in line with external expectations and pressures (Vansteenkiste et al., 2005).

This briefly sketched framework can be fruitfully applied to food-related activities. Although these activities are strongly associated with social expectations, habits and taste-related attitudes, there is also an impact of value-related attitudes, such as concerns about animal welfare, and values (de Boer, Hoogland, & Boersema, 2007; Kalof, Dietz, Stern, & Guagnano, 1999). The values can be interpreted in terms of care for nature and the welfare of animals, which is expressed through the universalism values from Schwartz's Value Survey (Schwartz, 1992) and the Portrait Value Questionnaire (PVQ, see Schwartz et al., 2001). Kasser (2002) notes that although Schwartz's value model was not designed to test ideas deriving from SDT, universalism values can be interpreted as serving needs for growth and integration. Additionally, the measure of universalism values can be

separated into a subset of social justice values and a subset of environmental values (Schwartz & Boehnke, 2004) - the latter are the most relevant to predict meat eating (de Boer & Aiking, 2011).

The reason why the consequences of meat eating have gained importance to many non-vegetarian consumers seems to be dissatisfaction with the industrial way of meat production that is common nowadays. The production process involves a chain of industrial activities, including factory farming, which produce highly standardized meat products, typically sold by supermarkets in a way that avoids reminding customers about the link between the meat dish and the killing of an animal (Vialles, 1994). An experimental study among consumers in the Netherlands demonstrated that reminders of meat's animal origin (made salient via a priming procedure) activated the intentions of those consumers who endorse universalism to purchase their meat from an animal-friendly production system (Hoogland, de Boer, & Boersema, 2005). Similarly, an experiment with on-package labeling showed that those consumers who endorsed universalism values had a higher intention to buy the explicitly animal friendly product (Hoogland, de Boer, & Boersema, 2007). Hence, the endorsement of universalism values implies a move away from associations with industrialized meat production, which supplies the bulk of the market. If these consumers make food choices by evaluating the fit between their personal values and the symbolic meaning of meat, they may decrease their preferences for meat (Allen & Baines, 2002; de Boer et al., 2007).

More specifically, research indicates that, in the context of food choices, the motivational relevance of universalism values can be interpreted in terms of what Higgins (1997; 2012) describes as prevention focused motivation (de Boer, Boersema, & Aiking, 2009; de Boer et al., 2007). Among those who endorse these values, respect for the welfare of people and nature is considered a moral responsibility, which will give them the experience of 'feeling right' about what they are doing if they avoid negatively valenced alternatives. For these consumers, meat reduction may be one of their acceptable options, because it fits well with health-related concerns about food and the growing appreciation of vegetarian meals, also among nutritionists (Sabaté, Duk, & Lee, 1999) and haute cuisine cooks (Gomez & Bouty, 2011). This hypothetical model of food choice motives may therefore explain the correlation found between endorsing universalism values or the subset of environmental values and a low level of meat consumption (de Boer et al., 2007; de Boer & Aiking, 2011).

Nature and climate change

The way in which climate change fits into this motivational framework depends on the perceived relationship between climate and nature. Both psychologically and physically, this is somewhat complicated. The basics are that climate is part of nature and that climate change is a natural process, which occurs over a wide range

of space and time scales. Complex societies have always been highly vulnerable to climatic stressors and these were attributed to unspecified forces grander than humans (Huber & Pedersen, 1997; Pfister, 2007). The main reason for the current concern about climate change is the anthropogenic contribution to this process. However, Donner (2007) argues that the traditional beliefs about the climate make it still difficult for people to fully accept the basic notion of human-induced climate change. This may be a breeding ground for the development of skeptical beliefs, as recorded by many public opinion surveys (see, e.g. Bord, Fisher, & O'Connor, 1998; Feinberg & Willer, 2011; Heath & Gifford, 2006; Leiserowitz, 2005; Poortinga, Spence, Whitmarsh, Capstick, & Pidgeon, 2011; Whitmarsh, 2011). Those people who do accept the notion may want to avoid major human caused climate change in order to, among other things, protect nature for future generations (Read, Bostrom, Morgan, Fischhoff, & Smuts, 1994; Reynolds, Bostrom, Read, & Morgan, 2010). Because nature is also severely threatened by non-climate related anthropogenic stressors (Rockström et al., 2009), nature protection and climate protection may be seen as separate activities that can go hand in hand or conflict with each other. For non-experts, however, that becomes much too complicated (Bostrom et al., 2012; Read et al., 1994; Reynolds et al., 2010).

The literature on environmental values (Kempton, Boster, & Hartley, 1995) suggests that people who are concerned about different environmental threats tend to combine various kinds of issues, such as biodiversity loss and climate change, in a holistic package that addresses all aspects of humankind's disturbed relationship with nature. From a motivational perspective, this tendency fits into a prevention orientation (de Boer, 2010; Higgins, 1997; 2012). Hence, it may be expected that consumers who endorse universalism values will also take the prevention of climate change more seriously. The work of Heath and Gifford (2006) provides support for this notion. Using a subtle motivational approach in a Canadian community sample, Heath and Gifford (2006) show that individuals who value nature for its own sake were more likely to believe that climate change is real and had stronger intentions to undertake mitigation actions.

In contrast, individuals who do not value nature for its own sake were less likely to believe that climate change is real (Heath & Gifford, 2006). Moreover, the study shows that skepticism about the existence, the causes and the seriousness of climate change was strongly related to a lack of interest in environmental issues and the belief that environmental issues have been exaggerated. Following Thompson and Barton (1994), Heath and Gifford (2006) use the term 'environmental apathy' to characterize this variable and they show that it is not just negatively correlated with caring for the environment but also strongly positively correlated with support for a free market ideology. Optimism and self-serving reasoning may form the motivational background of this attitude, which shows sharp contrast with prevention focused motivation (Higgins, 1997; 2012).

Hence, although nature and climate change have many things in common,

people tend nowadays to become ideologically polarized in their beliefs about climate change (see also Kahan, Jenkins-Smith, & Braman, 2011). The dynamic interactions between different groups, mediated by mass media and the Internet, shaped the competitive relationships between 'skeptics' and 'alarmists' who are constantly seeking to amplify either uncertainty or urgency (Leiserowitz, 2005; Whitmarsh, 2011). In this context, it has been shown that overly dire messages about climate change can backfire with some individuals (Feinberg & Willer, 2011). In general, backfiring occurs through motivated reasoning when individuals who receive unwelcome information come to support their original opinion even more strongly (Chong & Druckman, 2007; Nyhan & Reifler, 2010). Under these conditions, public appeals designed to help the mitigation process may in fact be counterproductive.

Meat eating and climate change

As mentioned before, stimulating consumers to change their meat consumption is still a very much under-explored option for mitigating climate change. The option of eating less meat can be seen as a relatively easy opportunity to help the mitigation process. For people in Western countries, there are many viable alternatives such as meat replacers or vegetarian food items that they can use to prepare their meals (McGee, 2004; Sadler, 2004). This may be especially attractive to individuals who care about nature and take climate change seriously, but who face significant barriers when they want to integrate their activities within their core values (Gifford, 2011; Whitmarsh, 2009; Whitmarsh & O'Neill, 2010; Wolf & Moser, 2011). Although the option of eating less meat may be seen as a welcome opportunity, several authors expect resistance from consumers (Friel et al., 2009; MacMillan & Middleton, 2010). For instance, a public call to cut meat consumption might backfire with consumers who combine a preference for meat with a skeptical opinion on climate change.

How consumers will respond is not yet clear. Until now the relationship between climate change and agriculture may not have been very salient to the general public. Some indications of public perceptions can be extracted from surveys in several European countries and the USA (Bostrom et al., 2012; European Commission, 2010; Read et al., 1994; Reynolds et al., 2010). The overall picture is that people in these countries have become somewhat skeptical about the seriousness of climate change. In September 2009 about 40 % of the public in the UK and the Netherlands agreed that the seriousness of climate change has been exaggerated (European Commission, 2009, p. 45). Some specific aspects of the relationship between climate change and agriculture have been explored in another recent European survey (European Commission, 2010, p. 57). The results do not indicate that people feel that agriculture is to blame for climate change. In response to a number of opinion statements, a small proportion (29%) agreed with the statement "Agriculture is one of the major causes of climate change".

However, there was a great deal of concern that damage is occurring in the opposite direction: a majority of the respondents (77%) agreed with the statement "In the coming years, agriculture will suffer strongly from the effects of climate change". This statement may generate less skepticism, because it is generally known that weather is especially important in the agrarian sector (Behringer, 1999). Some surveys in the USA also indicate that many participants expected serious consequences of climate change for agriculture but that they did not perceive agriculture as one of the major causes (Bostrom et al., 2012; Read et al., 1994; Reynolds et al., 2010). In a multinational study among business students "livestock production" was perceived as a much less important cause of climate change than "people driving their cars" (Bostrom et al., 2012).

Because none of the surveys included questions on meat consumption, there is no information on how consumers respond, in this context, to the option of eating less meat. Yet, an interesting result has recently been obtained in a survey of pro-environmental behaviors and concerns about climate change amongst the UK public (Whitmarsh & O'Neill, 2010). One of the items for measuring behavior referred to the frequency of the action "avoid eating meat" and this item was one of the four that formed an "eco-shopping and eating" component in a principal component analysis. It is noteworthy that the only significant predictors of this component in a multiple regression analysis were pro-environmental identity (e.g. thinking of oneself as an environmentally-friendly consumer) and a high level of education. This agrees with the above mentioned results. Remarkably, the four different measures of concern about climate change in terms of self-assessed knowledge, belief about causes, personal importance, and perceived risk had no significant influence on the "eco-shopping and eating" component. However, because the study did not focus on the relationship between climate change and meat consumption, it is not clear whether consumers saw any connection between these topics.

The present study

The aim of the present study is to explore, in a straightforward manner, how consumers respond to the idea of eating less meat for mitigating climate change, taking into account how often they eat meat at their main meal, how much they value nature and how they perceive climate issues. This approach was chosen because it builds on our earlier work about the impacts of meat consumption on food sustainability (e.g., de Boer & Aiking, 2011; de Boer et al., 2007; de Boer et al., 2009). Our first hypothesis aims to replicate the finding of a negative correlation between the frequency of meat consumption and the value of care for nature. As mentioned above, consumers in the Netherlands may clearly associate animal welfare and nature protection with eating less meat. In addition, the second hypothesis aims to replicate the finding by Heath and Gifford (2006) that the value of care for nature is negatively correlated with skepticism about the

seriousness of climate change.

The central part of the next two hypotheses is the idea that an individual can make a big difference to nature and climate protection by choosing one or more meals without meat every week. Both nature and climate protection were mentioned in the meat-free meal idea, because they are often named together. No reference was made to specific initiatives, such as "Meatless Monday" (e.g., Parker, 2011). The third hypothesis postulates that the meat-free meal idea will be received more positively by consumers who value care for nature and more negatively by those who do not value it. And finally, the fourth hypothesis is that the meat-free meal idea will be received more negatively by consumers who are skeptical about the seriousness of climate change and more positively by those who do take it seriously, independently of whether they value care for nature. The hypothesis does not predict a backfire effect of the meat-free meal idea, but leaves the issue open.

6.2 Method

Participants

The data set is based on a nationwide sample of 1,083 consumers in the Netherlands. The very high degree of Internet penetration in this country (about 93% of the population) enabled a survey among consumers with Internet access. The stratified sample was drawn from a large panel of persons who were willing to participate in web-based research for a small a reward, which they can keep for themselves or donate to charity.

Procedure

In November 2010 the participants (response rate 68%) answered questions about food. Due to the stratified sampling procedure, the data showed a representative distribution of the main demographic characteristics (see Table 4.2, page 81), although young men were slightly less likely than young women to participate. Building on earlier research on food choices (de Boer & Aiking, 2011; de Boer et al., 2007; de Boer et al., 2009), the questionnaire included modules with questions about meat (where "meat" does not include fish), attitudes towards meat products, food choice motives, basic human values (including the value of care for nature), and some household characteristics. In this chapter, we use from these modules the questions on the frequency of meat eating, the value of care for nature, and some demographics. The final part of the questionnaire contained five attitude statements on climate change and its relationship to agriculture, as well as the questions on the meat-free meal idea.

Measures

Frequency of meat consumption

The frequency of meat consumption was measured by a single question "How many days per week do you eat your main meal with meat (including chicken)?" This question had been used in earlier research on food choices (de Boer et al., 2007).

Value of care for nature

The degree to which the participants valued care for nature was measured by two nature-related items from the 40 item Portrait Value Questionnaire (PVQ, see Schwartz et al., 2001). In the PVQ each portrait consists of two sentences describing a person in terms of a value that is important to him or her. Participants were asked to compare the portrait to themselves and to rate on a 7-point scale "how much like you" the person is (i.e. 1 = not like me at all, 7 = very much like me). The female versions of the items related to nature are: "She strongly believes that people should care for nature. Looking after the environment is important to her" (M = 4.16, SD = 1.56) and "It is important to her to adapt to nature and to fit into it. She believes that people should not change nature" (M = 3.67, SD = 1.62). To assess the relative priority the participants gave to nature, their mean rating over all the portraits was subtracted from their score on each nature-related item, as advised by Schwartz (2001) to correct for individual differences in mean response to these types of items. After this centering procedure Cronbach's alpha for the two items was .66; the validity of the scale has been demonstrated in research on food choices (de Boer & Aiking, 2011) and judgments on biotechnology (de Boer, 2010).

Attitudes on climate change and its relationship to agriculture

To gain insight into the generalizability of the participants' opinions on climate change, we used a number of questions from Eurobarometer surveys. Two of the five attitude statements on climate change were adapted from Eurobarometer 72.1 (European Commission, 2009). These negatively worded items were "The seriousness of climate change has been exaggerated" and "Climate change is an unstoppable process, we cannot do anything about it". The three others were adapted from Eurobarometer 72.5 (European Commission, 2010) and slightly reworded in order to refer to "agriculture and animal husbandry" instead of just "agriculture". The reason is that the Dutch word for agriculture ("landbouw") may be interpreted in a way that does not include both crops and animals. The items were "Agriculture and animal husbandry together are one of the major causes of climate change", "In the coming years, agriculture and animal husbandry will

suffer strongly from the effects of climate change", and "If agriculture and animal husbandry change the way they work, they can counter climate change".

The answers to the items were fully in agreement with the results of the European surveys in the Netherlands a year earlier (European Commission, 2009; 2010). For example, 40% of the participants endorsed the item that the seriousness of climate change has been exaggerated (see Table 6.1, page 146). The participants who disagreed with this sceptical statement agreed more often with statements that recognize the bidirectional relationship between climate change and the agricultural sector. Mentioning the combination of agriculture and animal husbandry did not make a notable difference. As in the earlier survey, agriculture was seen primarily as a sector that is negatively affected by climate change (51%) rather than one that is a major cause of climate change (23%). The statement that agriculture and animal husbandry can counter climate change by changing the way they work was approved by 38%. The answers to the five items, on a scale varying from 1 (fully agree) to 7 (fully disagree), were analyzed with a principal components analysis. The factor score of the first unrotated component was used as a five-item measure of scepticism (see Table 6.1, page 146, explained variance 42%, eigenvalue 2.10, Cronbach's alpha of the component .65). The second component had a high loading for the item dealing with climate change as an unstoppable process and an eigenvalue of 1.18, which is too low for a reliable analysis. Overall, the multi-item scale differentiated participants who were sceptical about the seriousness of climate change (negative loading item) from those who took it seriously and acknowledged that it affects food production and vice versa (positive loading items).

Table 6.1: Attitude statements on climate change and its relationship with agriculture.

Items	Mean	SD	Factor loading[a]	Percentage of endorsement[b]			
				Agree	Middle	Disagree	Sum
The seriousness of climate change has been exaggerated.	3.87	1.69	-.61	40%	28%	32%	100%
Climate change is an unstoppable process, we cannot do anything about it.	4.25	1.65	-.35	31%	26%	43%	100%
Agriculture and animal husbandry is one of the major causes of climate change	4.36	1.46	.71	23%	36%	41%	100%
In the coming years, agriculture and animal husbandry will suffer strongly from the effects of climate change	3.46	1.31	.67	51%	34%	15%	100%
If agriculture and animal husbandry change the way they work, they can counter climate change	3.83	1.46	.81	38%	37%	25%	100%

[a]Unrotated principal component analysis, one component solution, accounting for 42% of variance.
[b]Answers were contracted from a 7-point scale, agree (1, 2, 3), middle (4), disagree (5, 6, 7).

Meat-free meal idea

The participants were asked whether they were familiar with the idea that an individual can make a big difference for nature and climate protection by choosing one (or more) meals without meat every week (possible answers "Yes" and "No"). Next, they were asked whether they were willing to do that. The answer alternatives were, 1 "Certainly", 2 "Maybe", 3 "I am already doing that", and 4 "No, I don't want to do that".

Analysis

By performing a multinomial logistic regression, it was determined how much the responses to the meat-free meal idea were associated with its familiarity, the frequency of meat consumption, the value of care for nature and scepticism about climate change. To control for correlations with background variables, we included gender, age and level of education in the analysis.

6.3 Results

Our first hypothesis postulated a negative correlation between the frequency of meat consumption and endorsing the value of care for nature. The frequency of meat as the main meal was measured in number of days per week. On average, the participants reported a number of 5.4 meat days per week (the median was 6). Eating meat every day was reported by 28% and 23% answered they did not eat meat more than 4 days a week. Despite these differences, almost all the participants were meat consumers and the number of vegetarians was low (1.2%). As Table 6.2 (page 149) shows, a lower frequency of meat consumption went together with a higher value attributed to care for nature ($r = -.21$ $p < .001$).

The second hypothesis stated that the value of care for nature is negatively correlated with scepticism about the seriousness of climate change. This is indeed what the data revealed ($r = -.20$ $p < .001$). Additionally, Table 6.2 (page 149) shows that a high degree of scepticism was associated with a somewhat higher frequency of weekly meat consumption ($r = .12$ $p < .001$), a slightly higher age ($r = .10$ $p < .01$) and lower level of education ($r = -.12$ $p < .001$).

The next two hypotheses concern the responses to the idea that an individual can make a big difference to nature and climate protection by choosing one or more meals without meat every week. The question that asked the participants whether they were familiar with the idea was answered positively by 64%. The correlations in Table 6.2 (page 149) show that familiarity with the idea was somewhat higher among people with a higher level of care for nature ($r = .20$ $p < .001$) and with higher age and education level ($r = .18$ and $r = .18$ $p < .001$). When asked about their willingness to choose a meal without meat 15% answered certainly, 41% maybe, 21% said they do it already and 23% said that they don't want to change.

The results of the multinomial logistic regression models, presented in Table 6.3 (page 150), revealed that familiarity with the meat-free idea and a low frequency of meat consumption significantly differentiated both the group who certainly wanted to change and the group who said they do it already from the participants who said maybe or no. According to the third hypothesis, the meat-free meal idea will be received more positively by consumers who value care for nature and more negatively by those who do not much care for nature. As Table 6.3 (page 150) demonstrates, a unit increase in valuing care for nature (e.g., one standard deviation) was associated with an increase of the odds of certainly wanting to change (54%) and a decrease of the odds of not wanting to change (46%), in comparison with the maybe-group. This finding agrees with the hypothesis.

The fourth hypothesis predicted that the meat-free meal idea will be received more negatively by consumers who are sceptical about the seriousness of climate change and more positively by those who do take it seriously, independently of whether they value care for nature. Table 6.3 (page 150) shows that, in comparison with the maybe-group, a unit increase in scepticism about climate change (e.g., one standard deviation) was associated with almost a doubling of the odds of not wanting to change (98%), partially supporting the fourth hypothesis. However, a decrease in scepticism was not significantly associated with the odds of certainly wanting to change. Hence, the meat-free meal idea was not received more positively by consumers who took climate change seriously.

Additionally, there were small differences between males and females (who more often agreed). Age did not significantly contribute to the prediction of the groups and level of education had a marginal influence. The overall model resulted in a Nagelkerke pseudo R2 of .36 (Chi- square = 435.18, df = 21, $p < .001$). The difference in likelihoods between the final model and a reduced model was larger for scepticism about climate change (Chi square = 69.65, df = 3, $p < .001$) than for valuing care for nature (Chi square = 51.35, df = 3, $p < .001$).

Table 6.2: Correlations between the predictor variables.

	1	2	3	4	5	6	7
1. Frequency of meat consumption	1						
2. Value of care for nature	-.21***	1					
3. Scepticism about climate change	.12***	-.20***	1				
4. Familiarity with meat-free idea	-.17***	.20***	-.11***	1			
5. Gender (woman)	-.04	.01	-.05	-.05	1		
6. Age	-.01	.21***	.10**	.18***	-.16***	1	
7. Level of education	-.14***	.03	-.12***	.18***	.00	-.14***	1

**p $<$ .01. ***p $<$ .001.

Table 6.3: Results of multinomial logistic regression models predicting responses to the meat-free meal idea.[4]

	Odds Ratio		
Predictor	Certainly wants to change	Claims to do it already	Does not want to change
Familiarity with meat-free idea	3.41***	3.56***	1.14
Frequency of meat consumption	.62***	.55***	1.04
Value of care for nature	1.54***	1.31	.64***
Scepticism about climate change	.88	1.08	1.98***
Gender (woman)	2.53***	1.59*	0.81
Age	1.00	1.01	1.00
Level of education	1.04	1.08	.90*

*p < .05. ***p < .001.

6.4 Discussion

Changing meat-eating habits may be seen as a relatively cheap and easy way to mitigate climate change, in contrast to many other climate mitigation behaviors, which are seriously constrained by external factors (Whitmarsh & O'Neill, 2010). In exploring this issue, we have taken into account that the option of eating less meat can be seen, on the one hand, as a new opportunity to help mitigation, but, on the other hand, as a counterproductive proposal that might trigger negative responses among consumers who are skeptical about climate change. The notion of a new opportunity means that the prevention of climate change may add an additional element to the environmental reasons for eating less meat that already seem to motivate consumers who value care for nature. Our measure of climate change attitude differentiated those consumers who were skeptical about the seriousness of climate change from those who acknowledged its great significance

[4]Notes: The reference category is "Maybe" (41%); the predictors value of care for nature and scepticism about climate change have been standardized; Nagelkerke R square =.36.

for the agricultural sector. The results replicated the finding by de Boer and Aiking (2011) of a negative correlation between the value of care for nature and the frequency of meat consumption, and the finding by Heath and Gifford (2006) of a negative correlation between the value of care for nature and skepticism about the seriousness of climate change.

Using a correlational design, we examined consumers' responses to the idea that they can make a big difference to nature and climate protection by choosing one or more meals without meat every week. As hypothesized, the meat-free meal idea was received more positively by consumers who valued care for nature and more negatively by those who did not value it. Also as hypothesized, the meat-free meal idea was received more negatively by consumers who were skeptical about the seriousness of climate change, independently of whether they valued care for nature. In contrast, however, consumers who took climate change seriously did not significantly respond more positively to the idea.

Motivational explanations

Our findings add to the growing evidence in support of motivational explanations of environmentally-relevant behavior (de Groot & Steg, 2010; Green-Demers, Pelletier, & Ménard, 1997; Kasser, 2002; Lavergne et al., 2010; Whitmarsh & O'Neill, 2010). From a theoretical perspective, SDT's work on tendencies toward integrating new experiences and Higgins' (2012) work on prevention focused motivation provide complimentary explanations of how valuing care for nature can be related to a low consumption of meat and the willingness to accept the meat-free meal idea. The findings suggest that a significant number of consumers was internally motivated to change their behavior in a prevention oriented way. In line with this motivation, they may have the experience of 'feeling right' about what they are doing, rather than seeing their behavior in terms of 'self-sacrifice'.

However, the participants who took climate change seriously did not seem to recognize the option of eating less meat as a significant opportunity for helping the mitigation process. One of the reasons may be that the connection between meat eating and climate change is too vague and too complicated to increase people's sense of urgency. A lack of urgency to address climate change is a general problem, as many psychologists who have tried to characterize the public's response have noted (Gifford, 2011; Reynolds et al., 2010; Weber & Stern, 2011; Whitmarsh, 2009). In addition, 'livestock production' may be perceived as a much less important cause of climate change than "people driving their cars" (Bostrom et al., 2012). Another reason for this finding may be that our measure of climate change attitude was not personalized enough to reveal subtle differences in motivation. Believing that the seriousness of the issue has been exaggerated stands at one pole of the scale in opposition to agreement with statements about cause, effect and solution at the other. Agreeing with these statements acknowledges that climate change negatively affects food production and vice versa. Although

it is reassuring that the answers to the items were fully in line with the results of earlier surveys (European Commission, 2009; 2010), agreeing with these statements may mean that, in the eyes of the consumers, it is the agricultural sector that has a problem with climate change, not they. The statements were less personally relevant than the items on valuing care for nature, which were taken from Schwartz's Portrait Value Questionnaire (Schwartz et al., 2001). Further research could reveal whether a more personalized approach in terms of care for climate will identify additional reasons for eating less meat beyond the reasons that already appear to motivate consumers who value care for nature.

At the opposite side of the scale, our results also underline the significance of a motivational analysis for a better understanding of climate change skeptics. The data suggest that the meat-free meal idea may serve as a counterproductive message, which triggers negative responses among consumers who are skeptical about climate change. Although the evidence is correlational, it is important to note that the degree to which they rejected the idea can be interpreted as a backfiring effect in response to unwelcome information (Chong & Druckman, 2007; Nyhan & Reifler, 2010). Obviously, our study is not able to specify the underlying mechanism and it should be mentioned that the background of skepticism about climate change is not completely clear. Skepticism seems to be associated less with ignorance and misunderstanding on the part of the public than with values and moral issues (Feinberg & Willer, 2011; Heath & Gifford, 2006; Kahan et al., 2011; Whitmarsh, 2011). As Heath and Gifford (2006) suggest, the belief that environmental issues have been exaggerated ('environmental apathy') is strongly associated with support for a free market ideology, self-serving reasoning and optimism. Theoretically, self-serving reasoning and optimism contrast sharply with self-determined behavior change and prevention focused motivation. In terms of Higgins (2012), there is a lack of motivational fit and this means that any public appeal aimed to trigger internally motivated, prevention oriented change, for example, to protect climate or nature, will fail to engage this group.

Mitigation strategies

Our results demonstrated in several ways that eating less meat is a very much under-explored option for mitigating climate change. The fact that a large percentage of the participants answered "maybe" to the question on their willingness to choose a meal without meat indicates that many had not made up their minds. Although this can be seen as possible support for the option, it is important for mitigation strategies not just to wait for an internally motivated, prevention oriented change and to develop a complementary approach. However, a crucial theme in SDT is that such an approach should take into account how social forces influence motivation (Lavergne et al., 2010). Contextual factors perceived by consumers as external pressure on their own judgment are expected to lead to negative impacts on their motivation. In contrast, a positive contribution may

be expected from contextual factors that are perceived to support socially valued alternative behaviors.

Creating socially valued alternatives may start with challenging taken-for-granted expectations about the position of meat as a dominant part of the meal (Douglas, 1972; Schösler, de Boer, & Boersema, 2012). In fact, it is the meal and not the meat as such that has to be the primary focus of efforts to change. In Western countries, it is the routinized pattern of meat consumption that accounts for its sheer volume. The emerging literature on this topic already suggests various ways to get consumers out of routinized meat eating and enable a shift towards more plant based options (Schösler et al., 2012; Wansink, 2002), for example, by the substitution of meat in convenience products (e.g., pizzas), where meat as an ingredient is already less visible and the substitute can be appropriately combined with the meal (Elzerman, Hoek, van Boekel, & Luning, 2011). Importantly, such a mitigation strategy should not give the impression to consumers that climate change campaigners want them to become vegetarians for environmental reasons.

Communication strategies

Clearly, further research is needed to specify how positive and negative responses to the meat-free meal idea can be predicted. Our rather straightforward approach did not pay attention to differences in framing and communication strategies that may be applied to engage people with different types of motivation (Gifford & Comeau, 2011; Nisbet, 2009; Moser, 2010). The various ways to frame the message may put an emphasis on meat, climate or nature. Our study suggests that an emphasis on the meat-climate issue is not very promising. Consumers who took climate change seriously did not significantly respond positively and the skeptics were negative. The connection between meat eating and climate change may also be too vague and too complicated to fit well into public communication campaigns that aim to inform consumers how they can act to promote a low carbon society, as pioneered by the UK (Whitmarsh, Seyfang, & O'Neill, 2011).

Instead of emphasizing the relationship between meat, carbon and climate change, it may be preferable to take a motivational perspective and to explore meaningful connections between value-related aspects of meat eating. Various campaigns to reduce meat consumption, such as Meatless Monday, have been primarily developed for public health reasons (Parker, 2011). Such a strategy can be further extended to support internally motivated, prevention oriented change. The notion of prevention motivation is consistent with multiple values regarding food choices, such as potential health benefits of moderate meat consumption, as well as care for animal welfare and nature (de Boer et al., 2007). This approach should avoid associations with 'self-sacrifice' that appear to be less appealing (Gifford & Comeau, 2011) but give consumers the experience of 'feeling right' about what they are doing. From the perspective of motivation, therefore, it is preferable not to isolate the meat-climate issue.

Limitations

A limitation of our study is that we used a simple correlational approach, which does not allow us to shed more light on the psychological processes that underlie consumer responses to the meat-free meal idea. Moreover, we used rather general attitude statements on climate change and agriculture, which should be supplemented by more specific beliefs about various linkages between meat eating and environmental pressure. A further limitation is that this study is based on single country data, i.e. on consumers in the Netherlands. Generalization of the findings to the broader population may be limited by the characteristics of the sample, the sampling method and the geographical scope of the study. Despite these limitations, we hope that our work will serve as a stimulus for further investigation of this emerging field.

6.5 Conclusion

The relationship between meat eating and climate change is an important topic for researchers and policy-makers. For researchers it is important, because the very idea of eating less meat to mitigate climate change may give rise to complex motivational processes among consumers. For policymakers in government, industry and non-governmental organizations the topic is important, because changing meat-eating habits may not only be seen as a relatively cheap and easy way to mitigate climate change, but also as an approach that can encounter resistance from consumers. Our findings show that simple calls to eat less meat may prove to be counterproductive. Because resistance is likely to undermine any efforts to engage the public with climate change, policymakers should not push consumers to accept the connection between meat eating and climate change. Instead of isolating the meat-climate issue, it is preferable to develop an approach that combines multiple values regarding food choices, including health and nature-related values. This approach may be conducive to an internally motivated, prevention oriented change. Taking into account how social forces influence motivation, a positive contribution may be expected from addressing contextual factors so that a meal without meat may become a more socially valued alternative.

6.6 References for Chapter 6

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Chapter 7

Conclusion

The purpose of this thesis was to give insight into the cultural potential to shift towards more sustainable food consumption patterns in the Netherlands. To this end, the cultural background of different food philosophies and their influence on the individual's food practices were explored. The consumption of meat and the potentials for and barriers to individuals adopting a more plant-based diet deserved special attention in this context (Carlsson-Kanyama & González, 2009; Reijnders & Soret, 2003; Smil, 2002). Meat consumption was treated as an integral part of larger food consumption patterns that have often been shaped over centuries, in complex interaction with social conventions, individual habits, and normative values and frameworks (Fischler, 1988). While many studies have addressed consumer food choices in the past, few have focused on the reduction of protein intake, in particular. Knowledge about the way in which non-vegetarians appreciate diets less centered on animal-derived foods is embodied in just a handful of studies (de Boer & Aiking, 2011; Lea, Crawford, & Worsley, 2006a, 2006b; Wansink, 2002). In the context of the current research, practices related to meat reduction and substitution and their potential adoption by more people on a more frequent basis need much more attention. After all, the consumption of as well as the abstinence from meat is often linked to culture, which indicates that solutions for a more sustainable diet also need to be sought in this realm. Based on a social-cultural understanding, pathways towards a more sustainable and generally plant-centered diet may be discovered and developed. This research therefore focused on drawing distinguishing parallels between the cultural and the individual level and putting individual behavior in the perspective of a broader cultural background. The research comprised a literature study as well as qualitative and quantitative interviews with Dutch consumers.

By means of combining sociological, philosophical and socio-psychological theories, a framework was created to describe the motivations of individuals in the context of value orientations and worldview. Particular attention was paid to the difference between externally and internally motivated eaters, because this dif-

ference captures the contrast between individuals who make food choices in line with their personal values and worldview or their intrinsic enjoyment of food, and, on the other hand, individuals whose food choices are rarely a result of personal values and worldview. From the outcomes it can be concluded that the degree to which people reflect upon their food choices is an important factor when aiming to determine strategies for behavioral change. The role that personal values play in food choices also relates to the degree of autonomy that people feel. If people are not autonomous, their behavior is more likely to be determined by external factors and consequently they will require external stimuli to change. In contrast, more autonomous individuals, making more internally motivated food choices, seem better equipped to create the kind of environment that fits with their personal values and beliefs. While the outcomes illustrate that internal motivation for food is associated with feelings of happiness and satisfaction, it is not likely that food will become similarly meaningful to all consumers. The in-depth studies of the internally motivated people holding a gourmet or organic food philosophy, are not meant to suggest that all consumers should become like them. After all, this research starts out from the acknowledgement that food-related values are highly pluralistic, which is unlikely to change in the near future. Rather, the philosophies are supposed to outline positive food-related motivations that indicate potential for change, also among groups that hold similar values but might not yet be acting accordingly. Previous studies among Dutch consumers illustrate that these value orientations are present in roughly 30% of Dutch society (de Boer & Aiking, 2009), which is a substantial target group. Thus, there is potential for learning from the food philosophies described in this thesis, offering valuable information for societal actors whose goal it is to facilitate more sustainable choices and to strengthen these particular cultural values. The philosophies and associated practices of internally motivated eaters described in chapters two and three must be seen as an exception to the cultural norm in the Netherlands, when they are compared to the food culture that Jobse-van Putten (1995) describes.

7.1 Food philosophies inviting cultural change

The qualitative studies in chapters two and three described different food philosophies. The groups described were interesting to us because they seemed to behave more autonomously and their practices differed from existing mainstream consumption patterns. The goal was to learn more about their food philosophies, in order to identify those cultural values that might be strengthened.

7.1.1 Purity: The organic food philosophy

The first exploration of cultural values associated with food led us to consider reflection-oriented eaters (de Boer, Hoogland, & Boersema, 2007). The study comprised a literature survey discussing the emergence of the organic movement and an interview study with contemporary organic consumers who were recruited in various organic shops in the Netherlands. The research question I aimed to answer was as follows:

> *What insights can we derive from the practices of "reflection-oriented eaters" about their values and motives? How far do they offer perspectives on cultural potentials and barriers for a transition towards more sustainable food patterns?*

The organic food philosophy builds on various cultural movements (Schösler, de Boer, & Boersema, 2012b). It was shaped as a strong resistance towards the food industry and technology, because they were perceived to superimpose consumption patterns that conflict with particular moral norms. People tried to conserve their independence and self-determination by orienting towards nature within as a source of morality (Taylor, 1989). The inward orientation of their philosophy often led to spiritual associations and a belief that human needs are not only satisfied by material needs. Self-determination was associated with the practice of a moderate lifestyle–the (partial) abstinence from meat and other "unnatural" foods.

Contemporary organic consumers in the Netherlands emphasized the value of connectedness to nature, awareness, and purity. The philosophy revolved around a special sense of connection with nature that was experienced on the basis of intuition and the sensation of awareness. It could be characterized as an embodied experience that would transcend the kind of connection that normally characterizes a person's life (Hyland, Wheeler, Kamble, & Masters, 2010). Some people had spiritual associations of being at one with nature and the cosmos, others adhered to more secular interpretations, highlighting the importance of care and responsibility for nature (Dryzek, 2005). These two interpretations should both be emphasized, as there is a potential threat that the spiritual associations might put some people off. Under both interpretations, the feeling of connection caused

people to unify their personal health with environmental health, which therefore entailed that striving for personal health and environmental protection became united goals. To these people, care for the natural environment was not a matter of altruism. Nature connectedness, awareness and purity appear to be important values that should be strengthened in order to facilitate a more sustainable culture of eating.

7.1.2 Pleasure: The gourmet food philosophy

The second study addressed the philosophy of taste-oriented eaters (de Boer, et al., 2007). Analogous to the first study, qualitative interviews were held with exponents of this group among members of a hobby cooking club as well as members of the Dutch Slow Food organization. The cultural background of gourmet culture and Slow Food were provided in order to answer the research question:

> *What insights can we derive from the practices of "taste-oriented eaters" about their values and motives? How far do they offer perspectives on cultural potentials and barriers for a transition towards more sustainable food patterns?*

The study illustrated that gourmet culture is not only a means of establishing social distinction (Schösler, de Boer, & Boersema, forthcoming). It can also be understood as setting new food cultural standards throughout society, where geographic specificity, craft production and consumption, personal connections and food traditions are found important. Slow Food is more than a restorative response to the threats to culinary traditions. It is an emergent movement that has crystallized several broader cultural themes, such as a heightened involvement with food and a reaction against increasing rationalization and standardization of food practices (van der Meulen, 2008). The gourmet food philosophy may give rise to a new stance of enjoyment of and pleasure in a more sustainable diet balancing associations with austerity and moral purity. The craft character of food practices in daily life can be a source of satisfaction and fun for people, which indirectly leads to a more meaningful engagement with food. While a highly industrialized food system has taken over many food-related tasks from people, it seems there is a renewed appreciation for food and cooking as a craft that is also interesting from a sustainability perspective.

Gourmet food philosophy may enable transitional changes towards a more sustainable culture of eating, specifically with regard to the consumption of meat. People are receptive to a shift towards better quality meat and the adoption of a new culture of eating that may facilitate a vegetable culture, the use of vegetarian foods from other cultures and general open-mindedness towards other eating styles. Overall, gourmet food philosophy may facilitate a positive discourse of more sustainable food choices, based on experimentation, pleasure and creativity. The themes discussed, pleasure of taste, food competence and social relatedness

are all powerful positive motivations that will be appealing to a large part of the Dutch population and are likely also to be valid in other countries.

7.1.3 The philosophies' relevance to sustainability[1]

The two philosophies described above show interesting similarities and differences. While the organics[2] seemed to develop their care for food mainly based on their personal and moral values, the gourmets appeared to care about food primarily based on their pleasure and enjoyment of all food-related activities. For a brief overview we contrast the two groups and associated value-orientations in Table 7.1.

The organic and gourmet food philosophies demonstrate the cultural potential of associating new meanings with more sustainable food choices. Both groups also exhibit practices that pioneer and facilitate a more sustainable food culture in the wider society (see also Carlsson-Kanyama & González, 2009; Thøgersen, 2010). Notably, the consumption of organic, local, and seasonal foods, the moderate consumption of meat, and what we call 'a new culture of eating' are interesting examples. We now discuss these practices in more detail.

Table 7.1: A comparison of the gourmets' and organics' food philosophies

The organics' food philosophy	The gourmets' food philosophy
Purity	**Pleasure of taste**
Purity in both a moral and physical sense	Pleasure, enjoyment, indulgence
You are what you eat	Stimulating all senses
Pure, honest, whole foods	Flavor, color, smell, taste, touch
Temperance, respect, and gratitude	Authenticity, originality
Distancing oneself from boundlessness and overconsumption	Appreciation of quality
Ethical and value-driven food choices	Variety
	Specialty

Table 7.1 continues on next page.

[1] Section 7.1.3 and 7.1.4 have been substantially refined in collaboration with Annick Hedlund-de Witt in the process of writing on this joint publication: Schösler & Hedlund-de Witt. (2012) 'Sustainable protein consumption and cultural innovation. What businesses, organizations, and governments can learn from sustainable food trends in Europe and the United States'. Research report commissioned by the Dutch Ministry of Economics, Agriculture and Innovation, The Hague.

[2] The participants of the studies described in chapters two and three are referred to here also as "the organics" and "the gourmets"

Awareness Sensual awareness Mindfulness, contemplation Sensitivity towards one's emotions Being in the moment, eating with full attention Peace of mind, relaxation Making contact with food Balance	**Food competence** Knowledge of food and food culture Food skills including ingredient selection, preparation, composition, presentation Creativity and experimentation; preparation from scratch Aesthetic conscience Autonomy and self-reliance
Connected with nature Feeling one with nature and living with nature Animals as fellow creatures Care for nature and the environment In alignment with the rhythms of nature Vitality, holistic health, and wellbeing Food that makes you feel good and healthy Connection with farmers and the land	**Social relatedness** Feeling part of one's food culture Valuing cultural diversity A sense of belonging and place Personal approach Origin and production history Supporting your local retailer and economy

Table 7.1 continues on next page.

Consumption of organic, local, and seasonal food

People holding the organic food philosophy expressed a strong need to do what feels natural to them, which led them to act responsibly, especially on behalf of nature and animals. They were mainly focused on organic production and guarantees for animal welfare. According to the principle of organic food, 'healthy soil, healthy plants, healthy people' (Codex Alimentarius, 1999), 'connectedness with nature' also had implications for their own health and vitality. Only foods produced according to this holistic, caring, and natural approach were considered pure, truly healthful, and nutritious and thus able to provide overall wellbeing, health and vitality. Overall, people with an organic food philosophy appeared to be less passionate about cooking, and the pleasure of taste was occasionally sacrificed for a more socially or environmentally responsible choice. Gourmets were in principle not ready to do so, and in fact this attitude of the organics was exactly what fostered the gourmets' prejudices about organic food: they tended to consider the organic philosophy with skepticism because to them it was associated with moral commitments and an ascetic lifestyle that endorses frugality and abstinence, rather than with an aspiration for the best tasting food. The organics conformed to these associations with their idealization of "simple", "basic", and "plain" foods.

Moreover, organics did not just rely on the organic label. They sometimes explained they were struggling with the fact that the organic sector might sacrifice some of their original values for the sake of growth and the globalization of supply chains. The critical and idealistic approach of this pioneer group illustrates their indirect yet powerful influence on the greening of the mainstream food industry. In fact, the organic movement stimulated the development of environmentally relevant certification and labeling systems, which continues to exert pressure on producers to raise sustainability standards of their production and supply chains (de Boer, 2003; Lewis et al., 2010). Labeling efforts have also served to create a segment between conventional and organic standards, which makes the purchase of more responsible products better accessible (and more affordable) to a larger group of consumers (Morris & Winter, 1999).[3]

Gourmets were very keen about the use of local foods. These often had the artisan character they searched for, were associated with a local food culture, and

[3] For example, the Netherlands have witnessed the introduction of a successful label that appeals to the ethical motives of consumers, introduced by Albert Hein, one of the country's biggest and most influential supermarket-chains. The label is called 'Puur en eerlijk' ("pure and honest") and it functions as an umbrella for organic, fair trade, and other more responsibly produced food and non-food items. This label demonstrates the salience of appealing to ethical motives that a core group in society holds, thereby increasing the number of people that can make more responsible choices with little effort on their part.

introduced variety into the standardized product offer of supermarkets. Overall, gourmets showed a profound commitment to more local, seasonal, artisan, and generally unprocessed foods, thereby contributing to sustainability-goals in several different ways. Local and seasonal produce are, from an environmental perspective, highly preferred, because they are much less energy-intensive as distribution, transportation, and storage demand great amounts of energy.

Seasonal foods were attractive to both groups for different reasons. To the organics they represented connectedness to nature and to the gourmets they were associated with freshness, superior taste, variety, and the connection to local producers.

Reduction and substitution of meat consumption

For most organics, meat reduction or even vegetarianism turned out to be the natural and logical consequence of their value-orientations. They viewed animals as sentient fellow creatures that feel suffering and pain, and they experienced an emotional bond with them. Especially the industrial and animal-unfriendly production of conventional meat was unacceptable to them and they would often refrain from eating meat. Some organics stated to eat meat infrequently (e.g. only one or a few days a week) and were committed to organic meat, which is produced in a more environment and animal friendly manner. With regard to the gourmets, motivations for moderate consumption of meat are more complex. While their emphasis on high quality meat, artisan products, and the creativity of vegetarian cooking often motivates them (indirectly) to consume less meat, their attitude towards a pronounced reduction of meat consumption is ambivalent. This is mainly due to the tremendous cultural importance of meat in Western, and particularly Northern European, food cultures. In general, gourmets appear to be 'meat-lovers'. None of the participants failed to point out the importance of meat within Dutch food culture, as well as its importance for achieving a sense of satisfaction and completeness of a meal, hereby voicing the attitude of a majority of Dutch consumers (de Boer, Boersema, & Aiking, 2009). However, a desire for high quality meat motivated participants to buy from (frequently quality-oriented) butchers rather than from (generally low-cost-oriented) supermarkets or grocery stores, to choose smaller portions, and to remain abstinent if a quality product was not available or affordable. The interviews illustrated how through the intermediary goal of optimal quality participants indirectly accepted moderation.

Also with regard to meat substitutes the two groups differed. The organics used meat substitutes regularly, while the gourmets, mainly due to the generally processed and convenience-oriented nature of these products, discarded them on aesthetic grounds. Because of their focus on taste, authentic to a particular cultural context and region, they also tended to be hostile towards processed and 'artificially created' products—even more so with regards to meat as it has

great cultural importance. The entire idea of meat substitution did not resonate with these individuals, because to them it implied a somewhat industrial 'search-and-replace' approach. According to them, food should be enjoyed because it is pleasurable, tasty, and attractive to one's aesthetic senses: food was considered an end in itself. A meat substitute, however, was considered a functional food aiming to replace meat, and this clashed with their philosophy. In contrast, the organic consumers were relatively open towards meat substitutes. Many participants were regular users of substitutes and they were appealing to them, because they were perceived as a convenient way of acting according to their animal welfare and environmental protection principles.

A new culture of eating

Under this heading we discuss a number of practices that can be considered indicators of a new culture of eating among organics and gourmets. Both groups liked to prepare vegetarian food. Gourmets were compelled by the creative challenge, the craft, and the experimental aspect involved in vegetarian cooking and the preparation of seasonal or locally grown vegetables. The trend towards "forgotten vegetables," which has captured farmer's markets and quality restaurants in the Netherlands, is illustrative of this new valuation of vegetables. This is a manifestation of the idea that not only meat can be the centerpiece of a meal, as it is according to current conventions, but also a skillfully prepared vegetable. Gourmets did not frame vegetarian cooking as the substitution of meat—to them it was rather the recognition and discovery of the rich variety of tastes and vegetarian dishes. Vegetarian cooking is therefore linked to the integration of new foods and more exotic food styles (Vogel, 2010) as other food cultures tend to feature a more extensive collection of vegetarian dishes. The organics were often fond of Asian and particularly Indian cuisine because they identified with the ethical principles of non-violence towards animals underlying a Buddhist vegetarian diet. Hereby, they would also integrate meat substitutes such as tofu and seitan. As far as exotic and new foods go, gourmets could get excited about trying out unfamiliar foods such as insects. It stimulated their sense of adventure and various participants had experience eating exotic foods such as insects, dogs, rats, or jellyfish. In contrast, organics were more inclined to, for example, algae, lentils or mushrooms as natural sources of plant protein.

Participants of both orientations tried to relate to food in more meaningful ways, thereby reviving values such as respect and gratitude for food. The gourmets illustrated that a more respectful attitude towards food also comes to expression in the use of leftovers from previous dishes, which fuelled their creativity to cook with whatever was at hand. They would also be inspired by whatever ingredients were available in their fridges and thereby avoid food waste as much as possible. A respectful use of food also led gourmets to the conviction that the entire animal should be used as food, and that it does not make sense to consume

only the most luxurious piece, as has become common practice with regard to many farmed animals nowadays. Some gourmets explained they prepared uncommon cuts of meat, so that nothing would have to go to waste. The use of leftovers and the practice of restricting oneself to seasonal or local availabilities, as well as the preference for plainer and less processed foods could all be associated with a valuation of simplicity. Gourmets felt that their creativity and craft was boosted by a narrower choice of foods (i.e. seasonal and local constraints, vegetarian meals), while to organics simplicity was associated with pure, raw, and plain foods, just as nature has it, which also entailed the acceptance of local and seasonal constraints on the availability of particular foods. A diet based on season and location may result in more diverse and sustainable food production, which in turn contributes to agro-biodiversity at the local level (Lotti, 2010).

Part of the new culture of eating involves the different ways in which connections within the food system are re-established. Organics emphasize that connectedness with nature inspires the closing of natural cycles and their sense of the holism of nature, body, and mind. Gourmets emphasize social relatedness and a sense of place, which motivates them to strengthen personal ties with other 'foodies', local producers, and/or retailers of small or medium enterprises. The groups' different senses of connectedness (or relatedness) highlight the impact of food choices on the quality of the local environment, economy, and agriculture, and this calls attention to the multiple social relations that consumers enter into when buying food. Closer ties between producers and consumers are expected to have positive spin-offs for sustainability, because transparency within food chains is likely to increase (Stagl, 2002). In turn, this enables consumers to learn about the sustainability aspects of their choices (ibid).

7.1.4 Conclusions on the organic and gourmet food philosophy

The purpose of these studies was to give insight into the emergence of new food philosophies and to assess them from a sustainability perspective, in order to facilitate the transition towards more sustainable food consumption patterns in society. The two philosophies described here show that individuals are capable of translating their values into their daily habits and practices, thereby re-visioning and reinventing the dominant food culture. However, since the data were derived from two highly selective groups of individuals in a specific Northwestern European country, the interview findings presented here cannot easily be generalized to a larger population. The two studies build on qualitative interviews that engage a few participants in order to develop a thorough, in-depth understanding of how daily food practices are meaningful to the individual. The main criterion of this research is thus the understandability and the theoretical significance of such practices rather than the representativeness of their accounts. However, in com-

bination with the cultural-historical background provided by the literature and the contextualization of the findings in sociological theory, we are confident that the emerging value-orientations represent larger cultural currents within Dutch and even Western society, and we expect them to continue to grow in the future.

As pointed out above, the data demonstrate a contrast between the predominantly ethical orientations of the organic food philosophy with the predominantly aesthetical orientation of the gourmet food philosophy. To simplify slightly, one might speak of a divergence between purity and pleasure. While their philosophies can be contrasted in some respects, it should be recognized that these people share the common goal of a more sustainable, humane, healthy, and satisfying food system. Marrying the two perspectives may substantially strengthen their cultural potential for change, because the display of the combined values of both purity and pleasure are likely to generate more interest of the larger public. Whereas too much emphasis on purity may be associated by certain consumers with sobriety or even deprivation, an exclusive emphasis on pleasure may bring up associations of emptiness or superficiality for others. When the two value-orientations are combined, these potential pitfalls may be overcome. Interestingly, it seems that the illustrated tendencies may have indeed started to converge: Organics appear to increasingly incorporate the aspect of food quality, taste, and the importance of an attractive presentation,[4] while gourmets may have become more aware of the fact that eating green does not conflict with the pleasure of taste. Moreover, gourmets increasingly seem to recognize that food sustainability might be a prerequisite for preserving high quality food as well as many traditional aspects of food culture.[5], [6]

[4] In the words of Carlo Petrini: "Pleasure and sustainability are a good match. I've always said: A gastronome who doesn't care about the environment, is stupid. An environmental activist who doesn't care about food, is pathetic." In: 'De beeldtaal van bio' 2.8.2011, de Volkskrant (www.volkskrant.nl/vk/nl/2844/Archief/archief/article/detail/2826341/2011/08/02 /De-beeldtaal-van-bio.dhtml)

[5] 'Voedsel heeft geen enkele waarde meer' 30.5.2011, de Volkskrant [Dutch national newspaper].

[6] The cultural philosopher Charles Taylor reflects on this process on a more abstract level, arguing that modern culture is partially characterized by a turn towards the voice of nature within. From this "expressivist" perspective, a central part of the good life consists of being open to the impulse of nature: "To be in tune with nature is to experience [our] desires as rich, as full, as significant—to respond to the current of life in nature" (Taylor, 1989, p. 372). In this way, sensuality itself becomes significant, pleasure becomes pure: "The good life itself comes to consist in a perfect fusion of the sensual and the spiritual, where our sensual fulfillments are experienced to have higher significance," thereby tending "to dissolve the distinction between the ethical and the aesthetic". (p. 373)

7.2 Profiling types of motivation from a sustainability perspective

Chapter four presents the results of a survey that was aimed at providing more quantitative insight into cultural factors as a background of motivation for food choices. To fully understand the relationship between cultural processes and the behavior of individuals, it is necessary to consider different types of motivation. The chapter discusses the cultural tensions in Western culture that Taylor (1989) sketches, and it employs Self Determination Theory, to identify food-related types of motivation that may also be relevant for sustainability. The research questions were formulated as follows:

> *What kinds of motivational themes underlying consumer food practices can be identified when correlating the cultural and the individual level?*
>
> *How do these themes affect various sustainability relevant topics and what can policy makers learn from this?*

From the analysis, four motivational themes were derived that underlie consumers' practices, values and beliefs. Those were interpreted as valuing the food-nature connection and intrinsic enjoyment of food[7] (both reflecting internal types of motivation, respectively identified and intrinsic motivation), extrinsic orientation towards food and ambivalence about food (both reflecting external types of motivation). It was hypothesized that the cultural tensions will be reflected by differences between consumers who have internalized the food-nature relationship and those who have an extrinsic orientation towards food. Various sustainability relevant food practices were assessed and it turned out that the groups had contrasting levels of meat consumption, contrasting preferences with regards to carefully produced meat and contrasting preferences towards plant-based foods.

It was concluded that valuing the food-nature connection stems from a kind of solidarity, which combines feelings of connectedness with responsibility for the prevention of harm to living beings. Connectedness and responsibility are essential elements of a caring attitude and the data showed that these consumers are more likely to make decisions conducive to sustainability. On the other hand, external types of motivations are associated with a practical, calculating approach to food, such as one-stop shopping instead of using specialty stores and use of instant products and instant meals. This efficiency is correlated with a higher trust in supermarkets to ensure the quality of food and a lower tendency to reflect on food choices. Taken together, these conditions make it more likely that consumers will choose the easy way and follow dominant patterns or conventions (Wansink, 2002). This is in line with the outcomes of this survey. As the dominant

[7] There is an overlap between these two types of motivation and the organic and gourmet food philosophy, respectively.

cultural pattern is associated with a high consumption of meat and a low regard for plant-based options (Grigg, 1995; Lea, et al., 2006b), policy makers need to address this issue more carefully. While extrinsic orientations towards food and ambivalence towards food are currently associated with choices that are less sustainable, this is not to say that the types of motivation in themselves are less sustainable. They may even be an advantage for achieving structural changes in people's diet (Jobse-van Putten, 1995). From the perspective of policy making, the different types of motivation will correspond to different measures to stimulate more sustainable food choices. This point will be discussed in more detail below.

7.3 Constructing pathways towards consumer-oriented meat substitution

Chapter five addressed the topic of meat substitution in more practical detail. The study uncovers existing cultural patterns of meat substitution and explored different substitution options within Dutch food culture. Based on the results, more general potential pathways of meat substitution are constructed. The research question was formulated as follows:

> *What insights regarding meat substitution can we derive from the practices of Dutch consumers and what kinds of pathways can be constructed towards meat substitution, accordingly?*

This study addressed current consumer practices regarding meat consumption and meat substitution in order to clarify attitudes towards various substitution options and identify pathways towards the (partial) substitution of meat in the future. Finding matches between meat-free options, on the one hand, and the practices and motives of consumers, on the other hand, is an important step towards identifying pathways for a transition. The key idea is that to create an effective dietary change, new behavior must be to some degree congruent with the rest of the behavior of the consumer (Ryan & Deci, 2000), which may include the cultivation of an adventurous taste (versus the preference for an ordinary meal) or reflective attention to the implications of food choices (versus being easy about food). The strength of this strategy is also that the primary focus of change efforts is not meat's special status, but its routinized consumption in terms of meat eating days and portion size. However, meat's special status should not be neglected, in particular as it appeared to be closely connected to the structural aspects of meals, and the frames of reference and skills of consumers.

The results showed that people have fairly consistent preferences regarding meal formats, i.e. preparing meal components or combining ingredients more freely, such as in a stir-fry. These preferences also determined which cuts of meat

they used as well as their appreciation of meat substitutes. In general, component meals make it more difficult to substitute meat, due to the central role of meat (Holm & Mohl, 2000). In contrast, combined meals make it comparatively easier to reduce meat amounts or even omit meat because of its less prominent position in the meal. Furthermore, participants evaluated different meals without meat that were presented to them by photographs. The visual clues were used in order to breach unfamiliarity with vegetarian meals and because some potential future options, such as insects and processed insect protein in convenience products were also included. The study found that it is useful to differentiate between meals where people seek to substitute meat in their meals while changing virtually nothing else and a more vegetarian meal style, using a broad range of mainly vegetable protein sources. In this last case, Dutch cooking is often merged with more exotic or foreign cuisines and therefore this strategy has an overlap with the adoption of 'a new culture of eating' that was described in section 7.1.3. Familiarity with meat substitution is important for the appreciation of both options, but the latter requires more skill, a stronger preference for vegetable proteins and, interestingly, an orientation towards taste. From the research, different pathways towards a more sustainable diet less centered on meat emerge. They are discussed in section 7.6 below.

7.4 Framing the reduction of meat consumption

In chapter six, particular arguments that may benefit or hamper public communication regarding a reduction of meat consumption were explored. The chapter is a step towards investigating in more detail how the results of this research could be applied within a policy context. The underlying idea was that various frames could be used to motivate particular behaviour among people. The research explored how beliefs about agriculture and climate change versus nature protection motivated eating less meat. The research question was formulated as follows:

> *How do people perceive the relationship between agriculture and climate change? What is the relation with their meat consumption habits and how do particular arguments affect their willingness to change these?*

The study examined responses of people in the Netherlands to the idea that they can make a big difference for nature and climate protection by choosing a meal without meat. As expected, their willingness to change their meat consumption habits was correlated with their current frequency of meat consumption, their personal values regarding nature and climate protection, and their familiarity with the fact that meat consumption and nature and climate protection are related. A majority of people believed, however, that agriculture and animal husbandry were a victim rather than a major cause of climate change. Yet, the statement that agriculture and animal husbandry can counter climate change by

changing the way they work was approved by a large minority. These responses indicate the complexity of the issue of climate change for the wider public, which is paired with considerable skepticism about the seriousness of climate change and a belief that climate change is an unstoppable process that we cannot do anything about.

Not surprisingly therefore, the results indicated that the association between nature protection and meat eating is more symmetric than that between climate change and meat eating. As skepticism is likely to undermine any efforts to engage the public with climate change, it is important for policy makers in government, industry and non-governmental organizations not to push consumers to accept the connection between meat eating and climate change. Alternatively, awareness could be built that the environmental pressure caused by meat production and consumption does not just involve climate change. Other significant impacts include the rate of biodiversity loss, land-use change and freshwater use (de Boer & Aiking, 2011). Hence, when striving for a more sustainable food system in the future, policymakers can refer to other values in discussing the implications of meat eating, such as care for nature, animal welfare and the local environment, the potential health benefits of moderate meat consumption or the social problems associated with industrial livestock farming.

7.5 Reflections on the theoretical framework

External versus internal types of motivation

The goal of this study was to gain an understanding of how different types of motivation shape food choices and what this means for food sustainability. At least part of the cultural tensions characteristic of Western culture (Taylor, 1989) could be measured at the level of individual motivation. SDT was used as a means to generate different motivational patterns that appeared to associate with either a calculating or an intuitive, creative approach to food. These differences were reflected in the concepts of external and internal types of motivation. Internal motivation refers to doing an activity for its own sake, because it's inherently enjoyable, satisfying or fun, or because one feels strongly committed and identifies with certain values associated with the activity. External motivation is to engage in an activity to obtain an outcome that is separate from the activity itself. It is typically driven by status, rewards, living up to others' expectations, feeling guilt, shame or internal compulsion. At this point, it should be noted that SDT has been used in several studies into the relationship between type of motivation and adoption of more sustainable behavior (e.g. de Groot & Steg, 2010; Villacorta, Koestner, & Lekes, 2003). However, these studies use SDT to systematically examine various reasons for engaging in pro-environmental behaviors, which is framed as "doing things for the environment". For example, intrinsic motivation

is described in terms of "I enjoy contributing to the environment" (de Groot & Steg, 2010). Although this approach can be meaningful in studying behavior with an explicit connection to the environment, such as recycling, it is obvious that cooking and eating are not meant "for the environment". Instead, it is cooking and eating that may (or may not) be inherently pleasurable and that may (or may not) be integrated into one's core values. This viewpoint will provide a new approach to studying the impacts of types of motivation on food choices and food sustainability.

In sum, the presumed link between cultural processes and the behavior of individuals via their type of motivation was vital to integrate and contextualize the survey results in this study. Building on earlier work that distinguished consumers according to their involvement in food, it appeared meaningful to differentiate types of motivation postulated by self-determination theory (Deci & Ryan, 2000; Vansteenkiste, Soenens, & Vandereycken, 2005). The types of motivation were successfully used to enrich predictions of sustainability-relevant choices. Although this set of measures is much less detailed than the marketing oriented Food-Related Lifestyle (FRL) concept (e.g. Brunso, Scholderer, & Grunert, 2004; Grunert, 1995), it covers aspects of motivation that are often not included in means-end chains, such as ambivalence, spiritual/religious orientations and a feeling of connectedness with nature. In addition, it should be feasible to develop measures that cover other personal value commitments and other external expectations or rewards. For instance, internalized motivation may not only refer to care about the long-term implications of food choices for nature and health, but also to care about the development of a particular taste culture, such as Slow Food (Fischler, 1999; Petrini, 2003). External motivation may involve expectations of other people about one's food choices, such as social norms (Pelletier, Dion, Slovinec-D'Angelo, & Reid, 2004). By its very nature, measuring external motivation may require broader sets of items inasmuch as it refers to a diversity of expectations, rewards and punishments. Hence, it should be feasible to develop other promising measures of this type of motivation.

Internal types of motivation are linked to a person's basic need for autonomy, competence and relatedness (Ryan & Deci, 2000). These themes are all well recognizable in the organic and the gourmet food philosophy discussed above. Participants reported more autonomous and self-determined food choices, which also tended to be more in line with participants' value orientations. During the qualitative interviews, it was striking to see the difference with people who did not seem to have a philosophy regarding why they made certain food choices. Some would show disinterest; others expressed uncertainty and unhappiness about their food choice and a feeling of being manipulated into making choices that they didn't necessarily consider best. People would sometimes painfully experience the discrepancy between their actual and their ideal choices, which could be related to unavailability, incompetence or lack of time to prepare certain meals, lack of financial means or the different preferences of other members in the household.

This dissatisfaction may be partly responsible for the ambivalence towards food (chapter four), provoking people to deal with food efficiently, in terms of time and money. In general, it can be concluded that a lack of internal motivation correlates with a stronger influence of environmental factors such as the physical environment and dominant norms and conventions. Thus, different types of motivation call for different measures to facilitate behavior change among consumers.

While the current research puts an emphasis on more internal types of motivation, it is not to say that external types of motivation disqualify as a driver for more sustainable consumption behavior. As Griskevicius et al. (2010) showed, the need for status, reputation and "conspicuous green consumption" can all be powerful motivational forces for more sustainable behavior. In contrast, Crompton (2011) argues that it is important to strengthen intrinsic motivation because "individuals who attach greater relative importance to intrinsic values are more likely to express concern about a range of social and environmental issues and are more likely to adopt behavior in line with this concern." Under specific circumstances, an appeal to extrinsic values may lead to environmentally favorable choices, because people may be sensitive to the image, social status or prestige associated, for example, with buying organic food. However, he argues that such behavior may be discontinued at some point because people feel no deeper urgency for it.

As a response to Crompton's argument, van der Weele (2011) contends that the dualism between extrinsic and intrinsic values does not do justice to the multiple domains giving rise to moral intuitions and therefore narrows down options to stimulate more sustainable behavior. According to van der Weele (ibid), the disqualification of status motives for more sustainable behaviors is unnecessary and reveals a too narrow vision on the meaning of self-interest. From the perspective of self-determination theory, however, external and internal types of motivation do not promote the dualism between self-interest and altruism/empathy. Internal types of motivation (intrinsic and identified motivation) are associated with the basic human needs of autonomy, competence and relatedness, which may all be in the individual's own interest. Also, it is emphasized that different types of motivation must be understood along the continuum of relative self-determination (Ryan & Deci, 2008, Vansteenkiste et al., 2005). Along this continuum there are different ways of internalizing behavior that may eventually lead to people fully integrating new behavior with their core values. In that way, extrinsically motivated behaviors may become truly autonomous and self-determined (Ryan & Deci, 2008), which is really what matters within self-determination theory.

More *autonomous* or *self-determined* types of motivation are clearly favoured (Ryan & Deci, 2008), because much empirical work applying and testing self-determination theory confirms that internal, more autonomous motivation is reliably related to better psychological health, happiness and satisfaction (Ryan & Deci, 2008). The theory is concerned with how people feel while acting and as a consequence of acting, and internal types of motivation are associated with more

satisfaction for the individual, and a sense of meaning associated with one's actions. Self-determination theory does therefore not directly juxtapose self-interest to altruism. While in the end it is the right kind of behavior that matters, it still seems feasible to plea for more attention to internal types of motivation and how these may be facilitated. Furthermore, the maintenance of externally motivated more sustainable behavior may always require the (physical) environment to provide the right kinds of stimuli to people. It may rely more heavily on government and/or industry to steer consumer behavior in the right direction, thus requiring commitment from another actor or institution instead. The theory of nudging (Thaler & Sunstein, 2008) represents an interesting starting point, to investigate this pathway for change in more detail. Taken together, however, the arguments presented above also validate further investigation of internal types of motivation associated with food consumption. The food philosophies described in chapters two and three make a contribution to this research agenda.

The cultural background of calculation versus intuition

The contrasting food practices, values and beliefs illustrated in the study seemed to be further accentuated by the cultural constellations in which Taylor (1989) juxtaposes a utilitarian, calculating mode of thought against an emphasis on intuitive feeling and creative imagination. Taylor (ibid) argues that an instrumental orientation towards nature that puts an emphasis on utility has as its most important consequence a separation from nature and a moral independence from it. Taylor does not directly address food consumption, but it provides a background study on Western culture. In chapter four we have aimed to incorporate his theory and we have shown that the calculating orientation can be associated with food practices geared towards efficiency, convenience and overall functionality of food with regard to health and nutrition. In contrast, the creative, intuitive orientation is based on people's care for nature and a strong feeling of connectedness.

Taylor's (1989) account overlaps with polarities that have been described elsewhere with regard to food. Lemke (2007) argues that Western thought about food has perpetuated the idea of a dualism between the mind and the body, where food is associated with the purposive concern of maintaining body functionality. While there could be great concern about the healthfulness of food and its capacity to sustain a healthy body, this concern is empty in terms of moral considerations. He argues that it reduces people's relation to food to a continuous control of self-restraint, fueling the struggle with gluttony and temptation. An important consequence of the essential devaluation of food and eating is the fact, that any heightened interest in food is almost by definition immoral, which in turn promotes an extrinsic orientation towards food. In that way, food and culinary practices have become of ancillary importance to human life (ibid). At the same time, there is the opposing view that we practice the good life in the commonplace everyday activities, making food consumption a constitutive part

of one's philosophy of life (Lemke, 2007). Food practice is 'Lebenskunst', which he defines as a considerate and sensual attention to the ordinary day-to-day dealings with food and its culinary aesthetics and an understanding of the complex relations of food to agriculture, politics, culture and health (ibid).

In different chapters parallels were sought between the polarities in the Western worldview described by Taylor and Lemke, and different theories regarding changes of this worldview. The 'Easternization of the West' and the 'craft consumption' theory of Campbell (2005, 2007) were mentioned as theories of cultural change that document a strong influence on food consumption. While the linkages between food and culture are complex and seldom straightforward, Campbell (2007) presents convincing evidence that changing perceptions of the human connectedness with nature, and a rediscovery of craft and competences may offer important cultural potential for accommodating more sustainable food choices. These ideas on the cultural potential have been developed in chapters two and three. In the remaining chapters, however, we focus on the fact that food-related values are highly pluralistic and that policy measures will need to be developed to facilitate more sustainable food consumption among all consumers. Even if Western culture is changing, the basic polarity that Taylor and Lemke discuss is unlikely to disappear as it is a defining feature of it. Therefore, policy makers need to develop measures to approach consumers with widely different orientations, while also focusing on the question how more careful and more meaningful food practices can be stimulated among larger parts of the population. The studies on the organic and gourmet food philosophy show that these orientations are already practiced within pioneering groups in society and that they have potential to facilitate more sustainable food choices. Further research is needed to address in more detail how these insights can be applied fruitfully within the context of food policy.

Taste versus convention and food efficiency

Chapter five picks up on a theme from previous literature regarding the opposition between taste-oriented food choices and convention-oriented food choice (de Boer, et al., 2007). An extrinsic orientation that is associated with practical, efficient food choices, makes it more likely that people follow existing conventions or dominant cultural patterns. Findings indicate that a preference for more carefully produced meat, vegetarian foods, protein literacy as well as the competence to prepare vegetarian foods are all associated with an orientation towards taste and reflection (Schösler, de Boer, & Boersema, 2012a).

Consumers with external types of motivation appeared to consume larger quantities of meat and they had a preference for snacks containing meat or cheese as opposed to vegetable-based snacks. An extrinsic orientation towards food was related to having great trust in the supermarkets ensuring food quality as well as a lower tendency to reflect on food choices. These patterns are associated

with people being more likely to choose according to external factors of the physical environment, such as advertisements for food and special offers. Also, the dominant pattern of high meat consumption is to a large degree sustained by externally motivated consumers. Those in this group are not inclined to reflect on their choices and trust that supermarkets ensure good quality food, which entails an expectation that other actors, such as supermarkets, food services or governments are considered responsible. They are in essence relying on others to edit their choices for them (Thaler & Sunstein, 2008) and they might change their behavior only when socio-cultural norms as well as their physical environments change in a direction that makes the more sustainable choice the easier and the more obvious one. In the supermarket or food service environment this change may be facilitated for example by the positions of more sustainable products in the store, their visibility compared to less sustainable options and competing prices (ibid). Choice architectures in the supermarket and in food service environments should take into account the physical environment of consumers but they should also address dominant social-cultural norms (Wansink, 2010). The responsibility of other actors, such as supermarkets, retail, food service must therefore be underlined.

7.6 Recommendations on pathways for change

At this point, we would like to briefly summarize some recommendations for change that have been developed in the preceding chapters, regarding implementation of the findings. We suggest constructing consumer-oriented pathways that combine an understanding of the cultural perspective on food patterns and take into account different types of motivation. As de Bakker and Dagevos (2011) have also argued, developing distinct pathways for change, does not imply that they are mutually exclusive. People may for example follow one path on the weekends and another during the week. The authors suggest that it is important to find good combinations of these routes and combine them with practical marketing strategies that promote sustainable consumption. Common policy instruments may not be sufficient to do this, requiring an innovative approach from policy makers. As Scholl et al. (2010) argue, "sustainable consumption policy necessitates a wide variety of angles, incentives and points of leverage, a multitude of actors is a prerequisite for effectively influencing and shaping consumption patterns." Our goal here is to suggest some starting points for policy makers in government and industry, in order to facilitate their efforts of implementing sustainable food policy.

Chapters two and three zoomed in on two particular consumer philosophies that champion more sustainable lifestyles, however in a different manner. As we explained above, the organics group puts a particular emphasis on personal and collectively shared values that are reflected in their food choices. In terms of

the motivational theory employed in chapter four they can be characterized as internally motivated consumers that strongly identify with values associated with a more sustainable lifestyle. This leads us to a pathway that highlights the role of values.

Pathway 1: Value-driven cultural change

The pathway utilizes significant cultural leverages - that is, values that motivate people to express concern about environmental and social problems - inviting them to adopt more environmentally friendly lifestyles (Crompton, 2011). More specifically, there are at least four leverages that should be mentioned in the Dutch context. The first is cultivating the value of connectedness with nature. The second is cultivating the relationship between awareness and wellness. The third refers to increasing the transparency of moral aspects that are hidden in many food choices. And the fourth is shaping and supporting social norms that reflect the intrinsic value of temperance. In what follows, we discuss some examples of how these leverages could be applied. Feeling connected with nature contributes to a feeling of responsibility and care for other creatures and the natural environment (Taylor, 1989). In the context of making more sustainable food choices, connectedness with nature is a value that needs strengthening, for example, in the context of urban development. Examples of how this can be done are the development of urban agriculture to enable cities to feed themselves from within or from its neighboring communities (Dixon, Donati, Pike, & Hattersley, 2009; Morgan & Sonnino, 2010). Various big cities, such as New York and London, are already working on food strategies for the future. Trying to localize food production, wherever feasible, is an important component of these strategies (Morgan & Sonnino, 2010). Also, new supermarket concepts that experiment with growing their products on site are interesting in this regard. More generally, initiatives that strengthen people's knowledge about the multiple links between food and nature, planting, harvesting and preparation may serve to increase a feeling of connectedness and they are also in line with the wish for a more natural, self-determined way of living that was expressed in the Reform movements. Second, we discussed the value of awareness. As the interviews illustrated, participants experienced independence and self-sufficiency, because they felt they could rely on their personal judgment regarding what is good to eat. This autonomy and the feeling of awareness itself were perceived as satisfying, also because participants felt that they were making choices in line with their personal values. By relying on their intuition and personal values, they felt less prone to external sources of influence, such as advertising. In terms of Taylor's framework, awareness is a crucial part of the expressive worldview, because it is a means to connect with inner /outer nature as a source of morality. Policy makers should acknowledge that this expressivity is a fundamental characteristic of Western culture that also pervades people's relationship with food (Delind, 2006). They may profit from

this fact by communicating about often implicit underlying values associated with more sustainable food consumption. Third, we discussed purity as a way of living a more meaningful, moral life (Campbell, 2007; Hamilton, et al., 1995). The critical, idealistic approach of organic consumers has stimulated the development of environmentally relevant certification and labeling systems, which exerts continuous pressure on producers to raise sustainability standards of their production and supply chains (de Boer, 2003; Lewis et al., 2010). Labeling efforts have also served to delineate between conventional and organic standards, providing a visual prompt to facilitate the purchase of more responsible products among a larger group of consumers (Morris & Winter, 1999). These labels demonstrate the salience of appealing to moral motives held by a core group in society, increasing the number of people that can make more responsible choices with less effort on their part. Fourthly, against the background of the organic philosophy, the need for personal behaviour change can more easily be acknowledged and achieved. An important part of the Reform movement was about people's capacity for moral self-improvement as a practice of self-determination (Barlösius, 1997). Temperance, the consumption of pure foods, and abstinence from meat were all ways in which Reformers practiced their moral values. As the interviews illustrated, these practices are still in use today (de Boer, et al., 2007). Policy makers may implicitly or explicitly support social norms that reflect the intrinsic value of temperance. This could be done, for example, by promoting the consumption of large amounts of meat as normatively unacceptable.

Pathway 2: Experience-driven cultural change

The cultural leverages that may be derived from the consumer group discussed in chapter three is slightly different. Their motivation does not derive so much from identification with particular values, but it is a group that takes great pleasure in all activities related to food and has strong interest in food-related topics. In terms of SDT motivational theory, they can be described as intrinsically motivated eaters.

The main leverage with this group is their great interest in food and their passion for culture, tradition, and taste. Food sustainability and culture are deeply interlinked and particularly with regards to meat consumption people may be sensitized towards buying higher quality meat products. As we discussed, many participants in this study pointed to the importance of meat within Dutch food culture and the importance of meat for their pleasure of taste. Hereby they voice the attitude of a majority of Dutch consumers (de Boer, et al., 2009) and probably many others. This demonstrates the futility of trying to remove meat entirely from people's plates and the potential danger of less subtle discourses trying to ban meat consumption all together. However, the high valuation of taste, and the idea among gourmets of meat as a delicacy may be helpful to promote a shift of emphasis from quantity to quality. The data illustrate that a desire for tasty

meat motivates participants to buy from butchers, choose smaller portions and remain abstinent if a quality product is not available. Thus moderation is indirectly acceptable to this group, be it not necessarily for environmental or animal welfare reasons. While these people are clearly meat lovers, they may be sensitive to the argument that the quality standards they envision can only be maintained at the expense of quantity.

The second leverage concerns the food competence and creativity that these people want to practice with food. This can be a promising entry point to promote more vegetarian cooking as part of a new culture of eating. Research among Dutch consumers has indicated that for most people the substitution of meat involves the use of fish, eggs and cheese (Schösler, et al., 2012a), but from a sustainability perspective other animal protein foods are equally problematic (Risku-Norja, Kurppa, & Helenius, 2009). Ideally, therefore vegetarian cooking should mainly feature plant proteins such as, for example, legumes, nuts or grains. The preparation of vegetarian meals that feature small amounts of animal proteins, is challenging for many people and involves openness to different meal formats, meals from other food cultures and protein literacy (Schösler, et al., 2012a). The current study illustrates that participants associated vegetarian cooking with a creative challenge and experimentation, which made vegetarian dishes an attractive alternative, where vegetables had a new standing. An example of this is also the successful trend towards "forgotten vegetables" that have recaptured farmer's markets in the Netherlands and where vegetables are also valued for enhancing local artisan production systems. This trend helps to support the idea that not only meat can be the centerpiece of a meal, according to current conventions, but also a skillfully prepared vegetable (see also Gomez & Bouty, 2011).

It seems that this new culture of eating, somewhat surprisingly, implies that people are willing to accept various limitations on their food choices, such as the seasonal (un)availability of food, cooking without meat and the efficient use of leftovers. Limitations on availability may be framed as a challenge to people's creativity and skill, instead of an impairment of their freedom of choice. This is a new take on moderation that can help to propagate ideas of simple eating and consuming less while maintaining the focus on pleasure of taste and food competences. As we also see important links with tackling the issue of food waste in households, further research should clarify how this ethics of simplicity (Johnston & Shyon, 2007; Miele & Murdoch, 2002) could become appealing to more consumers. Reasoning from the study results, the main challenge would be to avoid people experiencing these limitations as superimposed on them but instead to advance seeing them as natural challenges that they accept voluntarily and autonomously.

The third leverage concerns the people's valuation of social relatedness. It has been criticized by other scholars (see Scholl et al., 2010) that the social dimension of sustainability is painfully absent from policies promoting more sustainable consumption. This omission is particularly lamentable with regards to food, as

food consumption is an integral component of our social relations and networks, locally and globally. Policy instruments may focus on the positive consequences of a more sustainable food system for farmers, the preservation of professions in small trade and food artisanry, and the preservation of diversity in retail. The effectiveness of a focus on the social implications of consumption choices has been demonstrated, for example, by a recent campaign of Oxfam Novib in the Netherlands. It was called "De groene Sint" (green Santa Claus) and was launched to promote the use of fair trade chocolate around Christmas time. The campaign was extremely successful to broach the issue of child labor on cocoa farms, and the market share of fair trade chocolate was raised from 15% to 95% within a year's time. People clearly found it unacceptable that some children were forced to work in order to produce cheap chocolate for other children in more affluent parts of the world.

Pathway 3: Incremental change

Pathways three to five focus more on people with external types of motivation. They propose some direct practical adaptations of people's environment. The third pathway suggests an incremental change towards more health-conscious vegetarian meals without directly challenging existing meal formats and hierarchies. Reconsidering the hierarchy of existent substitution practices explained in chapter five, people would either substitute meat by using other animal products such as fish, eggs and cheese or they would use instant meat substitutes that may resemble the appearance and imitate the role of meat. Even though the use of other animal products, instead of meat is not very promising from a sustainability perspective (de Boer & Aiking, 2011), it is included here because it may be an important intermediate step to relativize the importance of meat and subsequently enable the shift towards more plant-based options.

The use of meat substitutes has become commonplace for people who, for various reasons, do not eat meat on a daily basis. Health and weight concerns can play a role here and it is a practical option for vegetarians who share a household with meat eaters. As Hoek et al. (2011) point out it concerns more pragmatic users of meat substitutes who differ from the dedicated vegetarians. Incremental change is also a feasible pathway for restaurants and canteens that want to introduce meat substitutes. They could be marketed as the 'healthy choice' rather than the 'vegetarian choice', because the products fit well within a health and convenience orientation, and are less interesting for highly involved consumers (Schösler, et al., forthcoming). The gourmets, for example, would almost categorically reject the use of meat substitutes on the grounds of lacking taste, a dismissal of convenience products and a perceived lack of authenticity. The organics were more inclined to use meat substitutes, because they saw the benefits for animal welfare and environmental protection.

Pathway 4: Opportunistic change

Another pathway is to make substitution more compatible with convenience culture. As Wansink (2002) argues one way to introduce unfamiliar foods is to combine them with existing foods. The survey demonstrated that especially young people found the invented pizza with processed insect protein as a meat substitute quite acceptable. This example demonstrates the potential advantages of opportunistic change. Convenience oriented consumers who focus on the ease of use may not be too bothered by the idea of consuming unfamiliar foods as long as the product remains superficially familiar. More generally, the outcome suggests that there is great potential for the substitution of meat in convenience products, because meat is already less visible as an ingredient and the substitute can be appropriately combined with the meal (Elzerman, Hoek, van Boekel, & Luning, 2011). Hybrid products that are currently appearing on the Dutch market also fit in this pathway. These products are sold as burgers or minced meat, but they do not entirely consist of meat.

Pathway 5: Conservative change

A final pathway to accommodate the range of dietary practices regarding use of animal products involves portion size awareness. The results in chapter five indicate that considering portion size is an option that serves as a supplement to the substitution practices. Eating small amounts of meat went together with a smaller number of meat days per week. Small portions can also easily be incorporated in many different types of diet. They can fit in a Dutch component meal but also in a Mediterranean or Asian diet. Eating small portions may also require reflective attention from a person who considers the implications of food choices in terms of health, weight control and ethical issues (de Boer et al., 2009). At the same time, smaller portions are also a feasible option for consumers with less controlled patterns of behavior or consumers who are easy about eating, because portion size is easily manipulated in food service. Institutional commitments to reduce meat intake, for example in company restaurants, can be undertaken along this path. The role of portion size has been investigated thoroughly in studies concerned with obesity (Hill, Wyatt, Reed, & Peters, 2003; Vermeer, Steenhuis, Leeuwis, Heymans, & Seidell, 2011) and it is an interesting question for future research how consumers may be convinced to make more environmentally friendly choices without having to adjust their habits too much. The interview studies indicated that adjustment of portion size was also a strategy employed by highly involved consumers. A smaller portion was usually associated with a shift from quantity to higher quality. This can be a useful argument when changes in portion size need to be motivated.

7.7 Limitations to this study

The approach taken within this study is highly interdisciplinary. Theories from sociology, psychology and cultural studies have been combined in an innovative manner. This presents some challenges to the research design and data collection, as well. The decision to work with interviews and a quantitative survey had to be made at the cost of collecting much more extensive participatory data that would have been useful for a study of contemporary food culture in the Netherlands. The study therefore needs to rely on reported practices rather than on direct observation by researchers.

The combination of macro level theories describing socio-cultural change and consumer motives on a micro level required a combination of different time scales and different paradigms of analysis. The combination of qualitative and quantitative research methods added a further level of complexity. While the qualitative, interpretive studies seek to understand and describe a group of people in their uniqueness, the quantitative studies seek to investigate representativeness of phenomena and comparison between individuals. Hofstede (2001) refers to the idiographic and nomothetic elements to a study and he argues that they "represent two sides of the same coin, two ways of finding out about the same reality." He adds, "they are both equally necessary and complementary." Overall, it seemed however, that the combination of these different elements required an integrative rather than a decomposing perspective on the individual and the approach may therefore be less suitable to analyze tensions for example between value orientations and behavior. Leaning towards an integrative perspective that seeks to identify similarities rather than differences between individuals or parts of society, does, according to Hofstede (ibid), not necessarily represent a limitation. He argues that research designs inquiring dimensions of culture usually favor either a perspective on similarities or difference, both are complementary and describe other dimensions of the same entity.

We need to acknowledge, however, that the study focuses in more detail on reflexive and internally motivated food consumers than on external types of motivation. This choice has been made because we were interested in people that seemed to deviate from dominant cultural consumption patterns and promote different cultural values. As Gronow and Warde (2001) have argued, much of contemporary consumer behavior must be considered 'ordinary consumption', which emphasizes ordinary rather than extraordinary items, routine and repetitive behavior rather than conscious decision making. The results of the current study indicate that ordinary consumption will need more attention in the future. Further research should clarify, what the food philosophies of externally motivated consumers might look like and what kinds of mixed motives we might find regarding consumers that are trying to make more sustainable choices within the existing structures. Another question will be, what influence eating out and food service will have on people's choices. While eating out is often described as a

megatrend, our survey results showed that almost 85% of the people ate their evening meal at home at least 6 days a week. However, in other countries eating out may be a more prominent issue that will also influence the kinds of pathways for change.

From a policy perspective, further, more longitudinal research should target the question in how far the internally motivated groups turn out to be feasible agents of societal change. As de Bakker and Dagevos (2011) have pointed out, such groups can be considered the most stable allies with respect to sustainable consumption, but they are also partners from whom the most severe criticism may be expected. The implementation of a model sustainable food policy that aims to build alliances with consumers and promotes various parallel pathways towards societal transition is still in its infancy. Further research needs to develop such innovative approaches within the food domain. Innovative policy instruments will be needed, and sustainable food policy may build on recommendations that have been made for sustainable consumption (see also, for example, Scholl et al. (2010)).

7.8 Conclusions

In this thesis I have aimed to gain more insight into the cultural factors that connect to potentials for and barriers to individuals in adopting more sustainable food consumption patterns. I have stressed the need to act upon the current social, environmental and health issues related to global food production and consumption. The urgency for action transpires from future projections regarding the consequences of unchecked transitions in dietary patterns for the environment and human health. The current study illustrates that consumer behavior needs to be addressed and that there is also considerable potential and real economic advantage in getting people to change. This is of course provided that government and industry are ready to take concerted action to support more sustainable food choices. The results illustrate that currently dominant cultural norms perpetuate unsustainable consumption patterns, but there is also evidence for a rising culture of sustainability (Hedlund-de Witt, 2011) that influences food choices, as well. A better understanding of these food philosophies is something that policy makers can draw on, and be inspired by, in their attempts to develop policies and strategies aimed at compelling the larger population into more sustainable food choices. Moreover, as also other authors have argued, food issues seem particularly suited for holistic and synergistic approaches that simultaneously address many different food-related issues: Food safety and social justice, health and obesity, local economy, rural livelihoods, ecological issues and sustainability need to be addressed from a systems perspective, acknowledging the complex interdependencies between them (see also Herren, 2011; PUP, 2011). Therefore, the identified food philosophies form a valuable starting point for policy makers to

formulate (communication) strategies that elevate and maintain the motivation of people to change their food practices, address important (cultural) barriers to such change, as well as provide a basis for more integral, holistic policy-making in the food domain (Schösler & Hedlund-de Witt, 2012).

The results of the current study also illustrate that consumers with external types of motivation may accept certain dietary adjustments if they don't need to revise current habits and question dominant conventions. Compared to other European countries, the Dutch low culinary self-consciousness (DeSoucey, 2010) can also be considered an advantage to taking measures that can have effect in the short term. As Jobse-van Putten (1995) argues, the stronger the link between food consumption and personal identity, the more difficult it is to convince people of changes to their diet. She argues that campaigns addressing food consumption, for example, in Southern European countries are notoriously unsuccessful because they are perceived as an assault on one's identity. Therefore, a relatively low interest in food among certain groups of consumers does not need to hamper structural improvements in their diet (ibid). At the same time, efforts should be made to facilitate a culture in which more marginalized food philosophies can flourish and where more people can enjoy the pleasure and purity that a deeper involvement with and caring for food has to offer.

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Samenvatting

Plezier en Puurheid

Een verkenning van 'eetculturele' waardeörientaties en hun betekenis voor een duurzame voedselconsumptie in Nederland

Voedselproductie en -consumptie hebben de grootst mogelijke milieu-impact van alle activiteiten van de mens. Het feit dat onze eetgewoontes duurzamer moeten worden is breed geaccepteerd, maar wat ontbreekt is een gedeelde visie op de veranderingen die hiervoor nodig zijn en op een samenleving die wenselijk is. Het doel van dit proefschrift is een beter begrip te krijgen van de redenen waarom die gedeelde visie op duurzame voedselconsumptie ontbreekt en veranderingstrajecten aan te duiden die beleidsmakers desondanks kunnen en moeten inzetten om veranderingen te bevorderen.

Het proefschrift bestaat uit vijf onafhankelijke onderzoeksartikelen die het centrale thema vanuit verschillende perspectieven benaderen. Derhalve zijn de hoofdstukken met elkaar verbonden maar ze hebben ook een eigen interne logica. Het eerste deel van het onderzoek (hoofdstuk twee en drie) identificeert twee verschillende culturele stromingen in de Nederlandse samenleving die veelbelovend lijken om het dominante paradigma in de voedselcultuur ter discussie te stellen en transities te bevorderen. Het dominante paradigma kan als problematisch beschouwd worden, met name omdat het de massaconsumptie van intensief geproduceerd vlees tot een routine heeft gemaakt. De overvloedige consumptie van dierlijke eiwitten heeft negatieve gevolgen voor het milieu en de samenleving, de gezondheid van de mens en dierenwelzijn. Twee kwalitatieve studies laten zien welke diepere motivaties mensen hebben om zich diepgaand met voedsel bezig te houden en hun consumptiepatronen te veranderen. Beide onderzochte culturele stromingen lieten zien dat het de mensen gaat om een diepere betekenis en zingeving in samenhang met hun voedselconsumptie. De één gaat het hierbij om persoonlijke waarden als natuurverbondenheid, aandachtigheid en puurheid en de ander zoekt betekenis in voedselcompetenties, een sensuele smaakbeleving

en sociale verbondenheid. Deze thema's reflecteren het contrast tussen puurheid en ethiek versus plezier en esthetiek. Het onderzoek laat zien dat de motivaties van hedendaagse consumenten geïnterpreteerd en begrepen kunnen worden in een analytisch kader van cultuurtheorie en cultuurveranderingen in het Westen. Het advies aan beleidsmakers die duurzame consumptiepatronen onder een grotere groep consumenten willen bevorderen is daarom om bij deze culturele trends aan te haken. Dit zou bijvoorbeeld kunnen door gerichte framing en stimulering van meer duurzame gedragspraktijken, bijvoorbeeld met behulp van 'nudging' (duwtjes in de goede richting).

Hoewel theorieën van cultuurverandering de aard, richting en dynamiek van sociale veranderingen kunnen aanduiden, moet er toch rekening gehouden worden dat het hier gaat om mogelijkerwijs geleidelijke, lange-termijn veranderingen. Om die reden wordt beleidsmakers geadviseerd om rekening te houden met waardenpluralisme en om parallel verschillende veranderingstrajecten in te zetten om een duurzamere voedselconsumptie te bevorderen. Het tweede deel van het onderzoek (hoofdstuk vier t/m zes) beschrijft daarom drie kwantitatieve studies die zeer uiteenlopende typen voedselgerelateerde motivaties onderzoeken. Hierin zijn de bovengenoemde kwalitatieve bevindingen meegenomen. Met behulp van 'self-determination theory' is het basisidee van een meer betekenisvolle voedselconsumptie verder ontwikkeld. Filosofische en sociaal-psychologische perspectieven zijn gecombineerd om passende verbindingen tussen het culturele en het individuele niveau te laten zien. In een survey onder Nederlandse consumenten werden metingen opgenomen van waardeoriëntaties en van intrinsieke en extrinsieke motivatie. De survey liet zien dat verschillende typen voedselgerelateerde motivaties in verband te brengen zijn met spanningen in de Westerse cultuur. Dit betreft de mate waarin de relatie tussen voedsel en natuur door consumenten was verinnerlijkt, hun intrinsieke plezier in het bereiden en eten van voedsel, de mate waarin externe factoren hun omgang met voedsel beïnvloeden, en de mate waarin ze ambivalentie voelden over hun voedselconsumptie. Deze typen motivatie zijn alle van invloed op voor duurzaamheid relevante voedselpraktijken, zoals de hoeveelheid vlees die men consumeert, de keuze voor biologisch, scharrelvlees of plantaardige snacks, en de prevalentie van een hoge lichaamsmassa-index.

De studie onderzocht ook praktijken van vleesconsumptie, vleesvervanging en vleesvermindering onder de consumenten. De praktijken lieten zien dat vleesvervanging een culturele gradiënt volgt. Het hoogst in deze hiërarchie staan andere producten van dierlijke oorsprong, vis, kaas of eieren, dan volgen verschillende conventionele vleesvervangers die als zodanig in de winkel verkocht worden, en uiteindelijk komen vegetarische maaltijden aan de orde waarin het vlees niet meer bewust vervangen wordt. De studie liet ook zien dat praktijken van vleesconsumptie, vleesvervanging en vleesvermindering beïnvloed worden door preferenties voor maaltijdsoorten (de conventionele driecomponenten maaltijd versus een combinatiemaaltijd), kennis van de bron van plantaardige of dierlijke eiwitten, kookvaardigheid, preferenties voor plantaardig voedsel en verschillende typen mo-

tivatie. Vooral onbekendheid en het ontbreken van kookvaardigheid bemoeilijken het bereiden van vegetarische maaltijden. Op basis van deze bevindingen wordt voorgesteld om verandering van de vleesconsumptiepatronen in hun complexiteit te zien en verschillende veranderingstrajecten in te zetten: een incrementele verandering naar meer op gezondheid georiënteerde vegetarische maaltijden, een op gemaksvoedsel georiënteerde verandering waarin vlees vervangen wordt zonder maaltijdstructuren te veranderen, het verkleinen van de vleesporties, en het inzetten van cultuurverandering, bijvoorbeeld door andere normen en waarden bewust te promoten.

Dit proefschrift geeft een beeld van hoe een cultuur van duurzame voedselconsumptie eruit zou kunnen zien en het toont hoe cultuur individuele voedselkeuzen beïnvloedt. De uitkomsten zijn geschikt om beleidsmakers bij overheid en industrie te informeren als zij zich ten doel stellen meer duurzame voedselkeuzes te bevorderen.

Abstract

Pleasure and Purity

An exploration of the cultural potential to shift towards more sustainable food consumption patterns in the Netherlands

Processes of food production and consumption have the single largest environmental impact of all human activities. The fact that diets have to change into a more sustainable direction is generally agreed upon. However, a shared vision of a sustainable and desirable society to support these changes, is missing. This thesis contributes to the question why we disagree about food sustainability and what different pathways policy makers will need to develop simultaneously to facilitate more sustainable food choices.

This thesis consists of five independent research papers that address this issue from different angles. As a result, the chapters are connected but they also follow their own internal logic. Firstly, the investigation was geared towards identifying cultural currents in Dutch society that incorporate promising elements to question the dominant food cultural paradigm and to facilitate transitional changes. The dominant paradigm can be considered problematic, particularly because it stimulates routinized mass meat consumption, which has detrimental effects on the environment and society, human health and animal welfare. Two in-depth, qualitative studies (chapter two and three) were carried out to understand what deeper motivational drivers could be identified among groups that currently show an increased involvement with food. It revealed that both groups were striving to incorporate a deeper level of meaning in their food choices. One focuses on the personal values of nature connectedness, awareness and purity and the other seeks meaning in food competences, taste and social relatedness. These themes reflect the contrast between purity and ethics versus pleasure and aesthetics. It was shown that the motivations of both groups can be interpreted and understood within larger analytic frameworks of culture and cultural change in the West. Therefore it is argued that policy efforts to motivate more sustainable

food consumption among a larger group of consumers may benefit from connecting to these underlying cultural trends, for example by means of framing and stimulating associated practices.

While theories of cultural change can indicate the nature, direction and dynamics of societal change, it concerns potentially slow and long-term developments. Therefore, policy makers need to address value pluralism and develop varying feasible pathways to stimulate a more sustainable diet. So secondly, three quantitative survey studies were carried out to investigate different types of food-related motivations, incorporating the qualitative findings mentioned above. Self-determination theory was employed to further develop the idea of meaningful food consumption. Thus, a philosophical and social-psychological perspective were combined in order to draw distinguishing parallels between the cultural and the individual level. Varying value orientations were tested in a representative survey in combination with the concept of intrinsic and extrinsic motivation, which gave rise to different motivational themes reflecting cultural tensions in Western society. These were the degree to which the food-nature relationship was internalized, intrinsic enjoyment of food, extrinsic orientation towards food and ambivalence towards food. These themes were all significant with regards to sustainability relevant topics: the quantities of meat that people indicated to consume, the choice for organic or free range meat or plant-based snacks and the prevalence of a high body mass index.

The study also addresses practices related to meat, meat substitution and meat reduction among Dutch consumers. The practices reflected a cultural gradient of meat substitution options running from other products of animal origin and conventional meat free meals to real vegetarian meals. The results demonstrated that patterns of meat consumption, substitution and reduction are influenced by preferences for meal formats (conventional three component meals versus combined meals), protein literacy, cooking skills, preferences for plant-based foods and motivational orientations towards food. In particular, a lack of familiarity and skill hampered the preparation of real vegetarian meals. Based on the findings a diversified understanding of meat substitution is proposed and four policy-relevant pathways for a transition towards a more plant-based diet are specified, including an incremental change towards more health-conscious vegetarian meals, a pathway that utilizes the trend towards convenience, a pathway of reduced portion size, and practice-oriented change towards vegetarian meals.

The thesis contributes to a better understanding what a culture of food sustainability may entail and it sheds light on the cultural influence on individual food choices. It illustrates how these insights might be utilized by policy makers in government and industry whose goal it is to facilitate more sustainable food choices.

Zusammenfassung

Sinnesfreude und Reinheit

Eine Studie zu esskulturellen Wertorientierungen und deren Bedeutung für eine nachhaltige Ernährung in den Niederlanden

Lebensmittelproduktion und -konsum haben bedeutende Umweltauswirkungen, aber auch soziale, ökonomische und gesundheitliche Implikationen. Das Ernährungssystem gilt also für die Nachhaltigkeit als ein sehr wichtiges Handlungsfeld. Die Tatsache, dass unsere Ernährungsgewohnheiten nachhaltiger werden müssen, ist dabei allgemein akzeptiert, und doch gibt es keine Einigkeit über die Frage, wie eine nachhaltige Gesellschaft und nachhaltige Lebensstile aussehen könnten, die solche Veränderungen unterstützen würden. Diese Dissertation erarbeitet Antworten auf die Frage warum es so schwierig ist, Übereinstimmung zu erreichen und welchen Handlungsspielraum Entscheidungsträger in Politik und Wirtschaft haben, um nachhaltige Ernährung zu fördern.

Die Arbeit besteht aus fünf unabhängigen Forschungsartikeln die das Thema nachhaltiger Ernährung aus verschiedenen Perspektiven bearbeiten. Die Artikel sind thematisch miteinander verbunden, sind aber auch unabhängig voneinander zu lesen. Der erste Teil der Forschungsarbeit (Kapitel zwei und drei) beschreibt zwei verschiedene kulturelle Strömungen unter der Niederländischen Bevölkerung, die im Zuge gesellschaftlichen Wertewandels begriffen werden können, und die das Potenzial haben, Veränderungen im Umgang mit dem Essen zu fördern. Das dominante Paradigma in der heutigen Ernährungskultur ist im Besonderen als problematisch anzusehen, da es den umfangreichen Konsum von intensiv produzierten Fleischprodukten ermöglicht und routinisiert hat. Der übermäßige Verzehr von tierischen Eiweißen hat negative Folgen für die Umwelt, soziale Strukturen, die Gesundheit des Menschen und erschwert eine artgerechte Tierhaltung. Zwei qualitative Studien erklären die Motive von bestimmten Gruppen, um sich intensiv mit der Ernährung auseinanderzusetzen und bewußt ihr Konsumverhalten zu verändern. Die Studien zeigen, dass es den Menschen darum geht, ihren Umgang mit

Essen in Einklang zu bringen mit ihrer Weltanschauung und damit ihrem Handeln eine tiefere Bedeutung zu geben. Für die eine Gruppe geht es dabei vor allem um persönliche Werte wie Naturverbundenheit, Aufmerksamkeit oder Achtsamkeit, und eine moralische, sowie stoffliche Reinheit des Essens. Die andere Gruppe sucht Bedeutung in sämtlichen Sinnesfreuden des Essens, Ernährungskompetenz und den sozialen Beziehungen, die der Umgang mit dem Essen schafft. Diese zwei Orientierungen reflektieren einen Kontrast zwischen Reinheit und Ethik einerseits und Sinnesfreude und Ästhetik andererseits. Die Artikel illustrieren, dass diese Einstellungen heutiger Konsumenten im Rahmen des gesellschaftlichen Wertewandels im Westen interpretiert werden können. Entscheidungsträgern, die nachhaltige Ernährung unter großen Teilen der Bevölkerung fördern möchten, wird daher empfohlen, sich diesen kulturellen Trends anzuschließen und sie sinnvoll zu benutzen. Hierbei ist zu denken an das Abstecken eines politischen Rahmens mit Hilfe bestimmter rhetorischer Begleittöne. Desweiteren können nachhaltige Ernährungspraktiken stimuliert werden mit Hilfe von 'nudging' (dem gezielten Anstoßen von klugen Entscheidungen).

Obwohl Theorien des Wertewandels die Art, Richtung und Dynamik von sozialen Veränderungen andeuten können, geht es hierbei doch oftmals um möglicherweise langsame und längerfristige Veränderungen. Man muss also ausgehen von sehr pluralistischen Orientierungen im Umgang mit dem Essen. Entscheidungsträger in Politik und Wirtschaft sollten parallel verschiedene Wege bewandern und unterschiedliche Werkzeuge einsetzen, um eine nachhaltige Ernährung zu fördern. Der zweite Teil der Arbeit (Kapitel vier bis sechs) beschreibt daher in drei quantitativen Studien stark divergierende Motivationen im Umgang mit dem Essen. Hierbei spielen die oben beschriebenen Orientierungen wiederum eine Rolle und mit Hilfe der 'Selbstbestimmungstheorie' wurde die Basisidee eines mehr sinnvollen Umgangs mit dem Essen weiterentwickelt. Philosophische und sozial-psychologische Perspektiven wurden hierzu kombiniert, um Verbindungen herzustellen zwischen dem kulturellen Niveau und dem Niveau individueller Motivation. In einer quantitativen Erhebung unter der Niederländischen Bevölkerung wurden Werteorientierungen gemessen und wurden intrinsische und extrinsische Motivationen unterschieden. Die Resultate geben an, dass verschiedene Motivationen mit Bezug auf das Essen in Bezug zu bringen sind mit einem typischen Spannungsfeld innerhalb der westlichen Kultur: einem eher intuitiven, expressiven gegenüber einem eher kalkulierenden Umgang mit der Ernährung. Diese Unterschiede werden deutlich aufgrund vier verschiedener Faktoren: das Maß in dem Menschen die Verbindung mit der Natur und der Ernährung verinnerlichen, wie viel Sinnesfreude ihnen der Umgang mit dem Essen bereitet, in wie fern externe Faktoren ihren Umgang mit dem Essen beeinflussen, und ob sie in Bezug auf ihre Ernährung Ambivalenz fühlen. Diese vier Faktoren stehen in Verband mit nachhaltigen Ernährungspraktiken, wie zum Beispiel der Frequenz und dem Umfang des Fleischkonsums, der Wahl für biologisches Fleisch, Freilandprodukte und vegetarische Snacks, sowie dem Körpergewicht.

Die Studie widmet sich auch Praktiken des Fleischkonsums, des Ersetzens, und des Verminderns des Fleisches. Die Praktiken von Menschen illustrierten, dass das Ersetzen des Fleisches bestimmten Regeln folgt. Hierbei werden erst andere Produkte tierischen Ursprungs als adäquater Fleischersatz gesehen, danach folgen konventionelle Fleischersatzprodukte die als solches vermarktet werden, und dann erst folgen vegetarische Mahlzeiten in denen Fleisch nicht mehr bewußt ersetzt wird und worin pflanzliche Proteine wie Nüsse, Linsen und Getreide eigenständig zu ihrem Recht kommen. Die Studie zeigt auch, dass Praktiken des Fleischkonsums abhängig sind von Präferenzen für bestimmte Mahlzeittypen: die konventionelle Dreikomponentenmahlzeit bestehend aus einem proteinhaltigen Element, einem kohlehydratehaltigen Element und einem Gemüse gegenüber einer kombinierten Mahlzeit wie zum Beispiel einem Pastagericht. Auch die Kenntnis, welche Nahrungsmittel tierische, beziehungsweise pflanzliche Proteine enthalten, sowie die Kochkompetenz, die Präferenz für pflanzliche Nahrungsmittel und die verschiedenen Motivationstypen spielen eine Rolle. Die Unkenntnis vegetarischer Mahlzeitalternativen und das Fehlen von Kochkompetenz erschweren die vermehrte Zubereitung von vegetarischen Gerichten. Die Forschungserbegnisse zeigen, dass Fleischkonsum auf komplexe Weise sozial-kulturell verankert ist, und dass die Verminderung oder qualitative Verbesserung des Fleischkonsums Strategien erfordert, die die Zielgruppen voneinander unterscheiden und gezielt in Veränderungstrajekte mit einbeziehen. Es bieten sich hier vier verschiedene Wege an. Erstens, die schrittweise Einführung von mehr vegetarischen Mahlzeiten als gesunde Alternative, zweitens eine beim convenience Trend anschließende Veränderung, die Fleischbestandteile (teilweise) ersetzt, ohne dass Mahlzeitstrukturen verändert werden müssen, drittens das Verkleinern der Portionen und viertens, wie oben bereits beschrieben, das Fördern einer Kulturveränderung.

Diese Dissertation verschafft einen ersten Einblick in die Überschneidungen der Themenbereiche Ernährungskultur, Nachhaltigkeit und soziale Psychologie. Die Resultate sollen Entscheidungsträgern zu Gute kommen, die sich in Politik und Wirtschaft mit der Förderung der nachhaltigen Ernährung beschäftigen.